

# MANUFACTURERS' RECORD

A WEEKLY SOUTHERN INDUSTRIAL, RAILROAD AND FINANCIAL NEWSPAPER

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## Manufacturers' Record.

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Manufacturers' Record Publishing Co.

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BALTIMORE, MARCH 17, 1904.

### TO OUR ADVERTISERS.

It has been impossible to have all advertisements exactly correct and properly located.

Our advertisers, we feel, will appreciate the difficulties encountered and bear with us until conditions can be fully met.

The Manufacturers' Record is published this week, pending the re-establishment of The Record Printing House in Baltimore, by George F. Lasher, of Philadelphia.

Business and news correspondence should, of course, be sent to the home offices of the Manufacturers' Record, corner of North and Lexington Streets, Baltimore, Md.

Advertisements of Southern localities offering special advantages for the location of manufacturing enterprises will be found on pages 64 and 65.

### NO NARROW PROVINCIALISM WANTED.

If the people of Baltimore want to see a great and prosperous city grow up here—a city worthy of its splendid location—they must frown down every sign of a narrow provincialism which would seek to discourage the incoming of men of capital—whether that capital be money, brains or brawn—to take part in the building of a really great cosmopolitan city. Prone to be content with itself, Baltimore has not given to the outside man the same character of welcome which he would receive in New York or Chicago. In those cities, who ever thinks of asking a man whether he lives there or whether he is an outsider? Can he do the work wanted, whether that be a bookkeeper's job, the construction of a great building or the management of a railroad, better than anyone else? is the only question asked. The idea that Baltimore people must employ only Baltimore architects or contractors or buy from Baltimore traders is so destructive of everything that would make for the creation of a really great city that it is inconceivable how men of supposed intelligence can take

such a position. We need and should have the rivalry and competition of outside brains and energy. Instead of discouraging their coming, we should herald it to the world that Baltimore's gates stand wide open to the stranger and that here he will receive every opportunity to do business on an equal footing with every other man. What has made Chicago and New York, and even Atlanta, the bustling, thriving cities they are but the equal footing on which every man stands who enters these places to do business? In these cities there is a broad spirit of cosmopolitanism which says to the stranger, not in word only, but in deed as well, you are welcome, and if you have money or energy you shall have just as good a chance as any man living here. The local man who can not meet this competition, but who cringingly cries that you must do business with him because he lives there, proves by that very fact that he is not made of the stuff which builds great cities. Away with all narrow provincialism, whether it be in Baltimore or in the South at large. Baltimore and the South need to draw to themselves the surplus energy and capital of the whole country, and by a law as unchangeable as that of the Medes and Persians the very incoming of these outsiders and their ability to compete with home talent results in such a general growth in trade as to give even the native a far better chance for business than he ever had before. As the South is beginning to put forth a vigorous effort to draw men and money from other sections, so should Baltimore do. But they must both realize that every dollar so expended and every effort made in this direction will be worse than wasted unless it be backed by that real, genuine, broad, cosmopolitan spirit which rates a man by his ability to do things rather than by the accident of where he was born. Hospitality, so called, that bids a welcome in words, but stabs in the back, that in the open says come, but in the secret says don't give business to him because he is an outsider, is worse than false. It is hypocrisy that accomplishes nothing, but the gradual ruin of the individual, the city or the country guilty of it. Then let us make good by deed as well as by word that Baltimore and the South mean what they say when they extend a welcome to the world—a welcome to every honest man, whether he have money or brains or muscle, to come and join in our upbuilding.

### WHY SUCH FOOLHARDINESS?

A dispatch from Jackson, Miss., describing its industrial advancement, tells of the establishment last week of a \$25,000 compress company at Mt. Olive; a \$7500 bottling company at Meridian; a \$60,000 banking and trust company at Aberdeen, and a \$20,000 company at Hattiesburg, and of a movement at Columbus for the establishment of a \$75,000 bank. These are

but a few incidents in the marked industrial advance which Mississippi has been making during the past four or five years. Sanity in legislation and in other conduct of public affairs has given the State an opportunity to realize promptly upon its vast material resources. What aberration, however, is responsible for the political state of mind revealed in another paragraph of the dispatch from Jackson, telling of the invitation of the Mississippi Legislature to William K. Hearst to address that body, and expressing the belief that in a short time a letter will be received from Hearst announcing "whether he will appear in person and deliver an address or write a message to the Legislature setting forth his opinion on public questions." What opinions on public questions has William K. Hearst? If he has any opinions why should he be invited to express them? Does the Mississippi Legislature wish to call a halt on its progress and prosperity?

### WATER-POWER IN THE SOUTH.

Any one who travels much among the mills in the South cannot fail to be impressed with the magnitude and importance of water-power as an asset of the industrial South. Any observant reader of the items of industrial news that are published weekly in the Construction Department of the Manufacturers' Record is led naturally to the same conclusion; for every week there is mention of the undertaking of some important manufacturing enterprise based upon the utilization of energy that has been running to waste in Southern streams since time began.

The industrial history of this country had its beginning alongside the numerous falls that mark the New England watercourses, and hundreds of these natural powers have furnished motive energy from colonial days to the present time. Nowhere else in the United States has water-power been so extensively utilized, until the utilization of the Hudson and Niagara rivers on a scale of unprecedented magnitude gave New York pre-eminence.

It is only within the last fifteen years that the importance and value of water-power has become appreciated, and this has been due wholly to the introduction of electricity as a means of transmission. Until within this period water-powers were of value only when it was possible to utilize them where they existed, driving the mill shafting direct from the water-wheel shaft. Most of the water-power in use in New England to-day is thus utilized, and important centers of industry have grown up in the course of years around the more important water-power sites. The expansion of manufacturing operations in many instances has far exceeded the capacity of the original power until the use of steam became a necessity, either to supplement deficient

water-power or to supplant it entirely.

Until electrical progress made possible the transformation and transmission of power on a large scale, it was impossible to utilize water-power to the best advantage, because the disadvantages of location often made it impracticable to build mills where abundant power could be had at small expense.

This is nowhere better illustrated than in the South. As many travelers know to their sorrow, a large proportion of water-driven mills in the South were built upon advantageous power sites but miles from a railroad. Many other equally good powers remained unused because of the impossibilities of their location.

All this has been changed, however, by the advent of electricity for power purposes, and now it is easily possible to locate a mill on the line of a railroad and use the power of a river miles away.

The abundant water-power of the South has been one of the most important factors in the development of the cotton-manufacturing industry, that has grown so amazingly in the past ten years, and for which such possibilities still can be seen in the future. The two typical pioneer developments at Columbia and Peizer, the one for the driving of several mills from a single water-power plant, and the other for the operation of a single mill from its own installation, have been followed by numerous interesting examples of hydraulic engineering and electrical transmission, until the element of novelty in this means of generating and transmitting power has disappeared.

It is not amiss to point out in this connection what Southern industry has contributed toward the furtherance of this phase of modern industrial science; for it was at Peizer that electrical transmission and electrical motors had their first practical application in cotton-mill work. And it was in the Olympia mill at Columbia that the first steam-driven electrical generators were installed for the driving of a cotton mill.

The necessity for the use of large units of power, and the lack of water-power near to the desirable or developed centers of industry, threatened to give absolute supremacy to steam, and for many years there was actually a decrease in the aggregate water-power used in manufacturing operations. With the advent of electrical transmission and the improvement of the turbine, there was a marked increase in the use of water-power, and the future is sure to bring still more notable developments along this line.

That section of the South which seems to be the chosen site of the cotton-manufacturing industry—the uplands and hill country of the Carolinas and Georgia—abounds in water-powers of size suitable for the driving of large mills. This resource which nature has provided is not the

least of the many advantages, which, taken together, promise to give supremacy of the world in cotton manufacturing to the South.

#### HIGH-PRESSURE WATER SERVICE FOR FIRE PROTECTION.

While Baltimore is considering plans for the restoration of the fire-damaged section of the city, and measures for the prevention of the recurrence of such a disaster, the provision of a special high-pressure water service for fire protection alone should be discussed with the seriousness which such protective measures demand. The efficacy of such protection is generally recognized, and there are enough installations of this character now in service in half a dozen cities to furnish abundant opportunity for careful study of a variety of plans.

With the completion of the pumping station recently described in these columns, Philadelphia now has the newest, and probably one of the best, systems of this kind in existence, affording to the congested business section of that city a degree of fire protection that has long been urged by property owners and insurance interests. New York now has the construction of a similar system under consideration, and Chicago has recently had the whole subject carefully investigated by a special commission appointed for the purpose. The report prepared for this commission contains some information that should prove of particular interest to the citizens and municipal authorities of Baltimore just at this time.

What has been done by other large cities in this direction is especially instructive, and may be summarized briefly as follows:

Philadelphia has a special high-pressure system of 39,800 feet of 6-, 12- and 16-inch pipe, with a pump pressure of 300 pounds and a hydrant pressure of 190 pounds.

Milwaukee has 45,717 feet of 8- and 10-inch pipe, with pump pressure of 250 pounds.

Cleveland has 16,500 feet of 6-, 8- and 10-inch pipe, with pump pressure of 275 pounds and hydrant pressure of 100 pounds.

Boston has a water-front loop of 4,700 feet of 12-inch pipe, with 200 pounds pressure at the pumps.

Providence has 29,400 feet of 12-, 16- and 24-inch pipe, with 116 pounds pressure at the hydrants.

Detroit has 25,831 feet of 8- and 10-inch pipe, with 240 pounds pump pressure.

Buffalo has 6,130 feet of 12-inch pipe, with 300 pounds pressure at the pumps and 180 pounds at the hydrants.

Chicago proposes to install a system embracing 310,000 feet of 8-, 12- and 36-inch pipe, with 300 pounds pressure at the pumps and 200 pounds at the hydrants.

The lessons of these cities can well be followed by Baltimore. The congestion of business in certain centers of every large city, due to the construction of tall, modern office buildings, department stores of large area and quick-burning contents, or closely-clustered factory buildings of dangerous character, has created fire risks with which water supply designed to meet ordinary conditions of a generation ago cannot cope with success. Every great conflagration points with disastrous emphasis to the necessity for meeting these new conditions with adequate high-pressure water service,

designed specially for protection against fire.

That a great fire has already occurred and damage done is no excuse for neglecting to provide everything possible that could prevent the recurrence of such a disaster. The provision of such a water system should form part of the plans for the restoration of the city of Baltimore.

#### TEXAS' MINERAL SURVEY.

Admiration of men who delight in doing things and in seeing things done has been aroused by the work accomplished in less than three years by the University of Texas Mineral Survey. Organized in May, 1901, under the practical and progressive directorship of Dr. William B. Phillips, it has since then embodied the results of investigations pushed vigorously in six bulletins dealing with Texas petroleum, sulphur, oil and quicksilver, in trans-Fecos Texas, coal, lignite and asphalt rock, the quicksilver deposits of Terlingua, Brewster county, the minerals and mineral localities of Texas, the mining laws of Texas and tables of magnetic declination, and in addition a special topographic map to accompany bulletin No. 2. A seventh bulletin just issued reviews the work done during 1903 and sketches the program for this year.

The field work last year began around the Shafter silver mine in Presidio county, and included investigations of the water supply in a part of El Paso county, where the public school fund of the State owns large areas of undivided lands, and an investigation by Dr. Heinrich Ries, of Cornell University, of the clays of the State. On this point the bulletin says:

The importance of the clays and cement rocks in Texas can scarcely be overestimated. They exist there in great variety and abundance, and already form the basis of an industry which is worth more than \$4,000,000 a year. The three cement works at Quanah, Dallas and San Antonio are turning out an excellent product and there is some probability of the revival of the cement industry, which was established at Austin several years ago. The certainty of the completion of an inter-oceanic canal lends additional interest to the cement industry in Texas, for a great deal of cement work will be required in construction. The wonderful growth of metallurgical works in Mexico should also stimulate our people in the direction of supplying the fire-brick so extensively used in such establishments.

It is not thought that the clays of Texas can be exhaustively treated in one publication, for the area over which excellent clays occur in workable quantities is certainly very large, but the report of Dr. Ries will serve to attract attention to a matter of great importance to the State and to lay the foundation for future investigations. Dr. Ries' report will be complete in every detail so far as it goes, but it will not attempt to cover the entire State nor to discuss every clay deposit that could be utilized. There has not been a publication of any sort dealing with the clays and cement rocks of Texas, and the special bulletin which we propose to issue should serve a most useful end.

About 100 samples of the clays from different parts of the State, prepared in the form of four-inch cubes, are to be exhibited at the St. Louis Exposition, to each sample being attached a card giving locality where it is to be found, the chemical composition and facts about such qualities as fusibility, plasticity, strength, color on burning, proper temperature for burning, suitability for various purposes, etc. This collection will be a feature of the State exhibit at St. Louis, which will include samples of the different mineral substances of the State, ores of the useful metals,

salt, sulphur, gypsum, asphalt rocks, coal, lignite, granite, serpentine, soapstone, marble, limestone, sandstone, cement rocks, onyx, agate and graphite. The assembling of this collection has occupied much of the time of the survey which, moreover, has been busy with routine of office work, which has given the survey the character of a bureau of information about Texas. It has also been engaged in identifying or analyzing a great variety of material and the researches of the laboratory into the nature of the coals and lignites of the State have excited wide interest. On this point the bulletin says:

There is a growing demand for a detailed study of the coals and lignites of the State and the fuel problem generally. The successful development of the manufacturing interests in the State depend upon a regular supply of cheap and effective fuel, and until the possibility of securing this can be assured it is idle to look for a larger commercial importance than we have now. We have had it in mind to undertake an examination into the entire fuel problem and in so far as the means at our disposal shall permit this will be done. There are untouched coal deposits in the State which should be investigated, and we hope to make a beginning in this direction this year.

What the bureau has already done for Texas is the guarantee that its energies will continue to be directed most intelligently and to the end that the State, now largely an undiscovered country geologically, shall attract the immense investments of industrial and other developmental capital which it naturally deserves.

#### PREPARED FOR EMERGENCIES.

In an hour's session last week the directors of the Pennsylvania Railroad Co. approved expenditures aggregating \$20,500,000 for improvements east of Pittsburg in 1904. These do not include the money to be spent on the New York tunnels and terminals, according to a dispatch from Philadelphia, but do include \$5,000,000 to be spent partly for the improvement and enlargement of the track facilities at Broad Street Station, Philadelphia, and \$13,500,000 for work laid out in the annual report. Other sums will be spent as the need arises. The promptness with which such vast expenditures were authorized is characteristic of the policy which has brought the Pennsylvania system to its leading position in American transportation. It seeks to anticipate traffic demands by liberal but judicious expenditures, sometimes in the face of opposition on the part of individuals unable to move at greater speed than a walk. In this particular instance it is believed that the demands upon the Pennsylvania system are growing so steadily that even the energy and liberality shown in these latest expenditures will hardly be equal to the occasion and that additional moneys for greater improvements must be voted before the pending ones have been completed.

#### LABELS FOR THE POLICE.

The United Garment Workers of Baltimore are seeking to compel the police of Baltimore City to wear a union label. They insist that the Board of Police Commissioners must not award the contract for police uniforms to any firm not using the union label. The President of the Board takes the legal and sensible view that the question is one in which the Board cannot interfere between the contractors and organized labor. In view of this impudent demand by an

element connected with a body which is attempting through Congressional action in the anti-injunction measure to legalize rioting and other crime as an admonition it might be well for the Police Board to go a step further and impress upon this particular body of organized labor that the only label for the police force of Baltimore to wear is the label of law and order.

#### INDUSTRIAL DEMANDS FOR RAILWAY MATERIAL.

A striking sign of the great growth of industry in the South is the rapidly increasing demand for railway material and equipment intended mainly for short lines in connection with industrial enterprises, such as lumber companies, quarrying companies, iron and coal mines, furnaces, etc. Within the last few weeks the Manufacturers' Record has published an unusually large number of inquiries of this kind. Among those who have lately made their wants known through the "Machinery Wanted" columns of the Manufacturers' Record are the J. A. Street Co., of Norfolk, Va., which wants several miles of 25 and 30-pound relaying rail, besides some stationary machinery; the Balfour Quarry Co., of Asheville, N. C., which needs about 35 tons of 50-pound relaying rail to be delivered at Salisbury, N. C.; the Georgia Granite Co., of Atlanta, Ga., which wishes to purchase four miles of 40 or 50-pound relaying rails; the Randleman Manufacturing Co., of Randleman, N. C., which is in the market for rolling stock and other material for a tram road; the Farmers' & Planters' Co., of Salisbury, Md., which wants 60 tons of relaying rails and splices; W. H. Britton & Co., of Lumbardale, N. C., who are looking for sufficient second-hand 40-pound steel rails for 18 or 20 miles of railroad, with splice bars and bolts for the same, delivery to be made at River Junction, Fla.; Joseph E. Bowen, Norfolk Va., who wants 110 miles of 60-pound new steel rails to be delivered at some point in North Carolina, and who also wishes two standard gauge 10-wheeler engines and one standard gauge dummy; the Whitelake Tie & Lumber Co., of Wilmington, N. C., which wants to purchase a 12 or 15-ton geared locomotive, second-hand, but ready for use, for a 42-inch gauge track, and three or five logging cars; Leonard Vyne, of Belvedere, N. C., who wants five or six standard gauge log cars and an eight or ten-ton standard gauge locomotive; R. F. Jarrett, of Dillsboro, N. C., who will want about 15 miles of second-hand rails (20 or 30 pounds) and estimates on one or more seven-ton locomotives; Samuel Carnes, Vienna, Ga., who desires to buy a logging locomotive, 20x22; the Williamson & Brown Land & Lumber Co., of Cerro Gordo, N. C., who will want a locomotive and log trucks with steel rails for three miles of track; the Buffalo Colliery Co., of Chattooy, W. Va., which wants iron and steel rails, mining cars and supplies. A correspondent at Post Office, Box 406, Rome, Ga., wants a second-hand 10-ton steam dummy, and another at Post Office, Box 1168, New Orleans, La., wants a 16 or 20-ton steam locomotive, standard gauge, second-hand, for logging purposes, and 250 tons of 45 to 60-pound relaying rails, first class, and to be delivered at New Orleans.

The foregoing constitute some of the demands for railway material and equipment, and kindred supplies which

now prevail in the South and the steady increase of information received by the Manufacturers' Record along these lines apparently indicates that as the season advances the demand will be greater. While it is probable that these wants have now been supplied, we have summed up the inquiries of the last week or two merely as an indication of the activity prevailing.

#### AGAINST REVIVAL OF BLAIRISM IN EDUCATION.

Smoked from its hole through the publication in the Hartford, Conn., Courant of a really pitiable letter from Robert C. Ogden, President of the "Conference for Education in the South," President of the "Southern Education Board" and a Director of the "General Education Board," one of the main projects of the Southern Education Scheme for the promotion of any kind of education involving the payment of easy salaries to "educational statesmen" or the gaining by insignificants of profitable notoriety, is raising some little dust in the open. It is the revival of Blairism, the control of the common school system of the several States of the country through appropriations from the Federal treasury. The principal spokesmen for this measure, limited in number, are either those holding executive positions in the segments of the scheme, or those who have been banqueted or otherwise favored by its promoters. Some of them are perfectly honest in their advocacy of the revival of Blairism but have become so dazzled by its specious visions of paternalism of the rankest sort that they hardly weigh the significance of their words. One of these, Dr. Charles W. Dabney, retiring from the presidency of the University of Tennessee to become president, at a higher salary, of the head institution of the Cincinnati public school system, says, for instance, in an address which, of course, the Atlanta Constitution endorses temporarily, that the plan of national aid does not imply that the country wants a Blair bill, and expresses the hope that that particular measure may never pass. Of course it will never pass. One may hardly imagine the possibility of Blair ever returning to Congress, and his particular measures died a natural and gratifying death when he passed from public view. The measure, in support of which the Southern Education Scheme, through its New York banquets, its "special train" jaunts and its Southern "conferences," would arouse unthinking public opinion, will be named for the individual who may have the temerity to essay a revival of Blairism in another disguise. Skunk cabbage under any other name is just as rank. As a matter of fact the orators who are endeavoring to allay apprehension by asserting that we don't want this or we don't want that, ought to know that, should such a misfortune as the passage of the measure befall the country, what this one wanted or that one did not want would not be considered at all. For, the underlying idea of the only measure that could possibly pass as set forth by about the only one of its advocates bold enough to indulge in something other than platitudes and generalities is, that for the handling of unlimited funds from the federal treasury the National Bureau of Education at Washington shall be endowed with such powers.

**That it can make education compulsory, fix the courses of study and direct instruction into any channel, industrial, intellectual, moral or religious, that the citizenship of any locality may particularly require.**

Of course it may be expected that the hospitable people of Birmingham who have been persuaded to welcome this year's Ogden excursionists will be told that it would be almost sacrilege to allow questions about this Scheme to intrude as elements of disagreement into a domain of thought and sentiment so vast and so sacred as the conference, even though it is not a transcendental body, and visiting journalistic discoverers will be beguiled into discovering anything but the facts. But there are two facts that should not be forgotten.

One is that without the publicity made possible by a liberal use of printer's ink by the Southern Education Scheme, Blairism would have passed forever into the shades with the death of the few of its original promoters who should have been utterly discredited as leaders in any safe educational movement.

The second is that the Southern Education Scheme will not die yet. It has at its disposal for about seven more years \$100,000 annually of Mr. John D. Rockefeller's money. Its executive and other expenses will undoubtedly continue as long as there is money to pay them, and the number of educational statesmen and philanthropists may be expected to increase as long as there is a chance of a whack at that money or any other, governmental or individual.

#### ANOTHER COAL ROAD TO TIDE.

In another column of this issue of the Manufacturers' Record appears a letter confirming previous reports to the effect that another great coal carrying railroad will be built from West Virginia to the Chesapeake Bay. Mr. William N. Page, president of the Gauley Mountain Coal Co., and also chief engineer of the Deepwater Railway of West Virginia, writes that his line, which is now under construction, will be connected with the Tidewater Railway recently incorporated at Staunton, Va., by T. D. Ranson and others, and that the two will form a through route to some point on tide-water near Norfolk, Va. The importance of this news will be appreciated when it is remembered that in the West Virginia counties of Fayette, Raleigh and Mercer, through which the Deepwater road passes, lie some of the greatest coal fields in the United States. Mr. Page further says that the Tidewater Railway will encounter no grade eastward greater than 25 feet to the mile, and that only for a comparatively short distance, there being a steady fall from the mountains to the sea. Surveys are now under way for the Virginia end of the road.

There is also a report, as yet unconfirmed but bearing the ear marks of probability, that in West Virginia an extension will be built northward for 30 or 40 miles to connect the new road with the Coal & Coke Railway, controlled by the Davis and Elkins interests. Should this latter plan be carried out there would be established through connection with the Wabash extensions now building, a line from Pittsburgh down through the West Virginia coal fields and the southern counties of Virginia to the mouth of the Chesapeake.

## The Rebuilding of Baltimore—IV.

[Written for the Manufacturers' Record.]

By ALBERT PHENIS.

While, during the past week, something of definite character has been done by the authorities toward making it possible for the people to begin the Rebuilding of Baltimore, so little of real achievement marks the sum total of progress that the effect on the public is rather to deaden ambition than to stimulate enterprise. By no means reassuring is the personnel of the Burned District Commission, appointed by the Mayor immediately after the passage by the Legislature of the act creating the commission; for in making his selections Mayor McLane was apparently over-solicitous as to the political affiliations of his appointees, conferring with party leaders and nicely balancing the political make-up of his board rather than making that provision of the act of decidedly minor importance and regarding especially the pre-eminent fitness of the men for a task which calls for not only experience and ability, but qualities of aggressive initiative and constructive force such as no occasion has ever before demanded in the history of Baltimore. Eminently respectable, personally, appear to be the men Mayor McLane has named, and they have lived long in Baltimore—some of them very, very long. But, measured by the standards here set up, they leave about as much to be desired as it would easily be possible for any board to do that any mayor might have named.

Enlightened and unbiased public opinion is therefore profoundly disappointed over the utter and complete failure of the local authorities to size up to the trying emergency that exists. With such splendid courage as the business men of Baltimore showed during the destruction of their treasures and organizations for carrying on business; with the pluck and heroism with which they fearlessly faced the disaster and the world, it would easily have been possible to lead a movement for the rehabilitation of the city which would have made Baltimore the marvel and the honored of all time.

This splendid opportunity was neglected. The leader did not appear. And the pity of it all is that the people themselves were ready to bring to the situation a vim and a vigor unsurpassed in the achievements of men. Long delays, endless debates, and then at last such action as fails to inspire confidence and arouse enthusiasm, have paralyzed—it is hoped only temporarily—the spirit of the people, and the pride of endeavor that might have been maintained has been checked.

What will be the course of events remains now to be seen. That Baltimore will be rebuilt there is no occasion to doubt, and that the new city will be fairer and more comfortable than the old there is yet no room to fear; but with the snap and the energy already oozing from the situation, and the prospect of long delays in the commission's work which will hold back improvements in a large and important section of the district, he must indeed be of phlegmatic turn who can contemplate with complacency the remoteness of the day when the new Baltimore shall appear.

The "milk has been spilled," and the citizens have once again been taught a bitter lesson—when it is too late, as is

always the case. "None resign and few die" is applicable now; so all that may be done by property owners and business men is to attend on the downsittings, deliberations and uprisings of their servants the Mayor, the Commission, the Boards of Estimate and Improvements and the City Council, that they may be kept steadfast in their promise to work unceasingly and daily not. Fair promises have been made; with the help of the property owners and the business interests, it is possible to greatly further the time when achievement shall have taken the place of all these promises to perform.

Three negative things have been done by Mayor McLane's new board. They have adopted entire the suggestions of the Emergency Committee, which has a negative value only, in that they promise not to do anything not recommended by that committee. This leaves property owners free to proceed with building along streets which are not to be disturbed, according to that report. They have also decided not to employ an engineer and not to have anything to do with the debris. Being, apparently, somewhat sensitive on the subject of debris, they have decided not to touch it. The people will have to do all the removing that is done in that line. As nothing yet is in evidence that compels the property owner to remove any debris, the whole matter being left to his own volition in the case, it is altogether conceivable that in some instances the ruins will remain in their present hideous shape for many months to come, an advertisement to the world that Baltimore spurns the imputation that she should ever come to be known as in any sense a rapid town.

Whether property owners are holding back to see what street changes are to be made, or whether they have fallen into step with the authorities, it remains that announcements concerning important buildings are not being freely made. Plans for a number of warehouses and stores have been announced, and permits for several have been taken out. Two or three hotels and some smaller office buildings are also under way, but the skyscrapers and the big B. & O. building and other important structures largely remain in *statu quo*. All the skyscrapers are to be repaired, it has been announced, and it has been as good as settled, in the case of several, who will get the work. The B. & O. plans, however, are still in the air, with many officials strongly urging the abandonment of the old corner and the construction on the Camden station site of a big building to accommodate every department but the city passenger agent and solicitor of freight, who would, of course, be provided with a corner in the busiest part of the shopping center.

Carrollton Hotel plans are likewise undecided yet. It is declared altogether probable that there will be another Carrollton Hotel, but it is not so certain that it will arise on the site of the old house.

There is some inquiry by outsiders for land in the burned district, and though buyers and sellers are still somewhat apart, it is not unlikely that negotiations

will be brought to a successful close in a number of instances, and large buildings owned by outside capitalists may become not unfrequent features of the rebuilding of the town.

Just now about all that can be said of the burned district is that the ruins are lying on the ground instead of standing

## Now Baltimore May be Restored.

### Burned District Commission's Appointment Simplifies the Situation.

Baltimore must not be held responsible and must not be allowed to suffer for the superficial and ephemeral setback it has been given. Its enthusiasm must not be dampened by circumstances beyond its control. The expected has happened. The opportunity for a city administration to distinguish itself for all time has become a condition which progressive Baltimoreans will recall only with feelings of distress. The Burned District Commission has been named, and the naming did not surprise those persons who had studied the policy laid down for His Honor the Mayor from the outset. Too late to avert the regrettable culmination of inexplicable tardiness, some framers of public opinion in the city have waxed wroth. The understanding in certain quarters that His Honor did not propose to be influenced in the slightest degree by what the press might reflect of public opinion, whether or not there was a basis for such an impression, may explain comparative silence during the four or five weeks in which no means for backbone stiffening and the encouragement of the exercise of individual intelligence should have been neglected. The situation, plain to thousands of citizens, had become so acute that the Manufacturers' Record felt called upon to publish, in its Daily Bulletin of March 7, the following:

"One month has passed since the fire devastated Baltimore. One thing has been accomplished—the demonstration that the city faces the flat proposition that measures for restoration must be pushed regardless of debris filling the municipal offices of the city. If ever the authorities of a city failed so signally as those of Baltimore have done to rise to a great emergency, the fact has passed beyond human memory. One of the chief alleged merits of the new city charter, much-bewritten and much-belauded by its framers, is its provisions accurately fixing the responsibility for the conduct of municipal affairs. As a working instrument the charter has shown that it is a fruitful manufacturer of business for lawyers and not preventive of a situation that might fix such responsibility as the control of a great steam-power plant in the hands of an unweaned infant. It is time for the business men of the city, men of affairs, the men accustomed to do things, to take charge of the situation and compel the responsible authorities to act intelligently and to some purpose, or to vacate the offices incompetently filled by them, so as to permit the rebuilding of the city at once, leaving the legal minds which have been making a bluff of doing something to spend the next century or so splitting hairs over details.

"In the meantime, part of one of the days which must necessarily intervene before the city can be placed upon a business basis should be set apart for a service of humiliation because the fire caught Baltimore with no city government fit to cope with the problem, and this service of humiliation should be followed by a mass meeting of responsible business men, to which no lawyer shall be admitted, to devise

in the air; three or four of the least damaged buildings are being repaired; a few hundred cartloads of debris are being hauled out every day, and down on the extreme edge of the district, where the power company's big plant stands, a few men with trowels are doing the only rebuilding a survey reveals.

Nothing has happened during the ten days which have since passed to warrant any change of opinions thus set forth. But they may be iterated. Andrew Carnegie is reported to have attributed his success to his practice of summoning to his aid men abler than himself. His Honor the Mayor has evidently emulated Carnegie. What seemed to be the cream of his appointments did not meet the approval of every one, and the appointee's friends, resenting the suggestion that he was not qualified to make an efficient member, or even chairman, of the commission, described him as follows:

They assert that he has "always shown a great interest in the development of Baltimore, has served in the City Council, as street-cleaning commissioner and as a member of the commission that condemned the property for Clifton Park. He is well posted on real estate," they claim, "and has considerable knowledge of architecture. Some years ago he took a course at Maryland Institute, and recently he has been giving much attention to practical work in the office of Mr. William H. Hodges, the architect."

So the Burned District Commission might as well be dismissed from public consciousness. It may be safely depended upon to draw its pay faithfully for the two or three, or five or ten years that it may exist, and to interfere in no material degree with the element in the community which, having delay as its unvarying rule, sees the opportunity of its life in the misfortune which has come upon the city. Citizens may, perhaps, seek to discover what sort of an anaconda may uncoil itself from the provision of the Burned District Commission bill which bids the commission to "include in its expenditures, and certify to the proper city authority or authorities any amounts due to such conveyancers and assistants as the City Solicitor may employ, in addition to the ordinary force of his office, for the purpose of examining such titles to property and rights as the work of said commission may render necessary or proper to be examined, and of recording the abstracts of titles; which said conveyancers and assistants the City Solicitor is hereby authorized to employ at such rates of compensation as he shall agree upon, and to discharge at pleasure."

Rejoicing, too, that none of the commission rose by his native force of character from a lowly position on the water front, and that such virile citizenry as the Lend-a-Hand Club, Daughters and Dames, the Arundell Club and the Bachelors' Cotillon will be ably represented by the commission, other elements of

Baltimore should now take up the task which was entrusted incontinently to incompetency five weeks ago, and do their utmost to recover valuable ground and make up lost time. They have been assured that the commission will not interfere with certain streets. Let the work of restoration be pushed upon those streets, and perhaps the authorities may, after all, be spurred into doing something prompt and effectively.

In spite of the municipal policy, calculated to draw the fire of energy and to diminish the vigor and vim of the com-

munity, it is not too late to demonstrate that the magnificent spirit of the city displayed from the moment that the vastness of its loss was appreciated, cannot be suppressed by timidity and narrow-mindedness on the part of the authorities. That demonstration must be made for Baltimore's vindication. It must be made lest the sight of untouched debris and naked ruins so paralyze aggressive public opinion that a sufficient number of votes may not be cast to authorize the absolutely necessary \$6,000,000 loan.

## Mile of Arcade for Baltimore Street

### Plan to Overcome Opposition to the Widening of That Thoroughfare.

It is reported that at a meeting last week of the Public Improvement Committee of the Merchants' and Manufacturers' Association, considerable opposition to the proposed widening of Baltimore street developed on the ground that the widening would result in small shops taking the place of large buildings that were there before the fire.

In view of the fact that not half of the north side of Baltimore street involved in the proposed widening was occupied by what may be called large buildings, any criticism on that score seems to fall. But there is a means of solving the problem of widening the street which not only should meet all objections and silence all opposition, but also should make widening most desirable for Baltimore street, as well as for some of the other streets in the plan of improvement. The means is an arched sidewalk along all the blocks between Liberty and Frederick streets.

It is proposed to throw back the north curb-line 10 feet, and it is argued that this, throwing back the building-line also, will make the lots too shallow. By the arcade system the building-line, except for the ground floor, would coincide with the curb-line, and there could be as many stories from the second floor up as the new building regulations should permit, all having the original depth of the building.

The advantages of this plan are manifold. Instead of that side of the street being filled with small shops, there would be every inducement for it to be occupied by establishments seeking the choice locations. The arcade would mean a covered way for eight or nine blocks on one of the principal streets of the city, and with the car tracks remaining as they are, a covered way on the side of the street which for its greater distance between the curb and the car track would be chosen for carriages of shoppers. The arcade would give protection from stress of weather, the rain and snow of winter and the sun of summer, and, naturally, pedestrians would choose that side of the street. Hence, enterprising tradesmen, bankers, etc., desiring to get as convenient to the passing throng as possible, would find on the arcade the sites for their establishments.

Instead of the north-side property losing value, it would be given such an increase that owners could really afford to yield their rights to the city for the widening of the street without the delay and expenses of condemnation proceedings.

This value would be further enhanced by the opportunity given by the arcade, with its pillars on the curb-line, for striking architectural effects in the buildings rising above. A bit of conference and co-operation on the part of rebuilders could produce contrasts in color, material and design making a beautiful

whole which would advertise Baltimore far and wide throughout the country and advertise each establishment in the arcade.

Conference and co-operation may also solve advantageously other problems suggested by the widening of the streets. The practically utter destruction of whole blocks of buildings makes possible restoration on the block system which has been tried effectively in other communities. This system does away with narrow alleys, impediments rather than aids to business, and while economical of space, gives freedom for light and air and movement. Built up on all four sides, the block has a large area within, to which access is had by an arched way. Into this area and the vehicles there waiting are passed all goods intended for shipment, and the sweepings and other refuse of the buildings, and all the buildings with the exception of those of the four corners of the block—and that exception surmountable by the architect—will have windows at the back and at the front, giving plenty of light and air.

Another means of saving space is had in the common elevator with one entrance on the ground floor, but opening on its four sides to meet the conveniences of separate establishments on the several floors. This plan has already been adopted elsewhere, to the satisfaction of everybody concerned.

Other suggestions might be made, but for expedition in the rehabilitation of the burned district, for a unique and permanent advertisement of the city and a limited number of fortunate tradesmen, let the north side of Baltimore street for a mile be arched through the burned district.

### MONEY FOR REBUILDING.

#### Outside Capital to Reinforce Payments for Insurance.

With the adjustment of insurance losses and the payment of policies by the companies now nearing completion, the question of disposing of this money becomes of present importance. In discussions of this matter occurring recently, the great advantage of using this money quite largely as working capital in the case of business houses has been strongly urged. Of course, individual cases may call for special treatment, but wherever practicable and opportune, it is suggested that money for rebuilding be not taken from local funds, but be borrowed from the outside. There is a large net loss between the amount of insurance carried and the value of property destroyed, so that it would seriously drain the money resources of Baltimore if it were attempted to secure here all the money that will be required. Money is a drug in the banks of New York, and many of the life insurance companies and savings institutions of the coun-

try generally would undoubtedly be very glad to loan money on a great deal of Baltimore business property. And it will be highly desirable to get in this way, at the low rate of interest which would prevail, all the outside money which could possibly be secured. Boston and New England money rebuilt Chicago, to the immense advantage of both mortgagor and mortgagee.

Insurance adjusters figure that the total amount of payments the companies will be called on to make will foot up somewhere near \$30,000,000. There is no way of telling how much greater than this the losses were. In a number of cases there was no insurance at all. In very few was the amount 100 per cent. of the value. In recent years it has become increasingly frequent for the insured to take out a policy covering 80 per cent. of the value, on account of a very attractive premium rate which insurance companies have come to allow on a minimum of that amount. While the average loss is believed to be all of 50 per cent., yet in cases where it is only 20 per cent. the need of additional capital is so apparent that sales of securities or bank loans are likely to be resorted to. If in all such cases, wherever arrangements can be made, the insurance money shall be wholly retained as working capital, outside money being secured to rebuild, the result would be a very beneficial one to all concerned.

#### NOT TO SUPPLANT LOCAL MEN.

##### Exposition of the Attitude of Non-Baltimore Architects and Contractors.

"In considering this question of inviting in or shutting out the builder from other cities," said Mr. Henry Q. Kennedy, connected with F. T. Maguire, of Philadelphia, "I think a failure to see all sides of the proposition is responsible for much of the hostility one occasionally meets among local architects and property-owners. I notice that this feeling is very largely confined, by the way, to those who come in touch with the trades, and of course the feeling is in every case inspired by a sentiment that the money spent on the new buildings shall go to Baltimore men and firms, as far as that is possible. As we are all in business for the profit there is in it, I have no disposition to quarrel with Baltimoreans for wanting to keep as much building money at home as they can. With \$50,000,000 or so to be spent in new buildings here within a couple of years, the appeal to 'local pride' among the builders is certainly a very strong one."

"But leaving aside the question as to how long it would take Baltimore builders, alone, to replace the burned buildings—for I think that is a matter the property-owners themselves will take hold of and settle in due time—I believe it worth while to give a little consideration to the methods employed by outside contractors, so as to find out about what foundation there is for the feeling here that anything given to an outsider is so much taken bodily from the sum total of the city's resources—money diverted from, lost to, local channels of trade, to be distributed wholly among outsiders. Now, as a matter of fact, and as ordinary reason will dictate on reflection, any outside contractor will much prefer to give out sub-contracts, buy materials and employ laborers here, if he can do so as well, all things considered, as he could by going elsewhere, and in any event a large percentage of the money he would receive from a contract would necessarily have to be spent here. Labor is the big item of all undertakings, and even if some laborers are brought from the

outside—and there would probably be none beyond a few bosses, superintendents, etc.—the wages they received would largely be paid out for living expenses, and would thus go into the channels of trade here.

"I maintain that the difference in the amount of money left in the city by an outside builder and a local one is not a matter of economic importance, for your local builder has to send away a larger percentage of his contract price than a good many people stop to reckon on. His iron, stone, cement, lumber—in fact, about everything except labor—is brought in either through local agents or by direct purchase from foreign concerns, and a very small percentage of this money remains in Baltimore.

"I am confident I voice the sentiments of all those from the outside when I say we are not here to supplant local men; we are here to help them rebuild Baltimore, and I am certain our help will be needed in the rebuilding, speedily, of a better city. No one will deny that present conditions are very costly to the property-owners and the business interests of the city, and a delay of a couple of years or more in rebuilding would mean an irreparable loss. Representatives of the biggest building and contracting firms in the country are here; the pick of the brains of the building business is at Baltimore's command; our organizations are complete, our systems thorough and our experience ripe. To any one familiar with the time and men necessary to do the work that must be done, it is strongly apparent that it is not a question of keeping outsiders away, but of asking them in; for it is evident that with every local man choked up with work, hardly more than a start would have been made. Fairness to property-owners, fairness to business interests, fairness to the future of Baltimore, suggests that all who are equipped and willing to do work be asked to join hands and help make Baltimore not only as good as she was, but a much finer and better city.

"While urging an open city for men, I would like also to say a word in behalf of materials. In endeavoring to build a new Baltimore which shall be less liable to such a conflagration as has recently occurred here, there should be full latitude given to the use of standard materials and methods of construction. It would be a great mistake to continue to limit builders to the use of certain proprietary articles which for any reason happen to be in favor, while others of recognized standard in the trade are barred out. The city should be opened for the best materials in every line. Let tests be called for, if desired, and if based on standard scientific principles, all will willingly and gladly enter the market, with results advantageous to all concerned."

#### Met the Strain on the Hotels.

In spite of the great tax on the resources of the remaining hotels, which would have been crowded by the influx of visitors since the fire, even if the conflagration had not wiped out half a dozen or so hotels, the management of those which were spared has succeeded most admirably in meeting the situation with little discomfort to their patrons and with much credit to themselves. In the case of the Rennert, especially, which has not only had to take care of visitors but also very largely fill the breach caused by the destruction of other lunch rooms and restaurants of the better class in the down-town district, the emergency has been a doubly trying one. Although it would have been pos-

sible, a good part of the time, to hang up the theatrical "S. R. O." sign, so great has been the demand for rooms here, yet the management has taken no advantage of conditions to mark up rates, either in the hotel or the restaurant, and rooms right along have been obtainable at the old rates of \$1.50 up. In taking care of their patrons not only have the old rates been maintained, but the restaurant has likewise preserved the excellence of its cuisine, which has made Rennert's a place famed among good livers the world over.

#### REINFORCED CONCRETE.

##### Successful Test of Its Fire-Resisting Character

In the anxiety of owners, architects, builders and everybody involved in the work of rebuilding Baltimore, to see definite and reassuring action taken by the leisurely authorities, the lessons of the fire and the demonstration of relative values of fire-proofing or fire-resisting materials has not received the full attention that the public generally would otherwise have given it. Now that something has been done in the way of a start, or rather, now that the preliminaries to action have finally been agreed upon, it is likely that renewed and increasing interest will be centered in a study of the lesson the fire taught to architects and builders, and the forthcoming report of the United States Government on the behavior of various materials used in building will doubtless be studied with very great interest.

One of the points on which there is certain to be much discussion is the battle between the hollow tiling and the concrete men. Even with the fire's demonstration before them, there is some difference of opinion still among the adherents of the two materials, each side interpreting the results very much in accordance with previous views or interests.

A striking example of how reinforced concrete stood the heat is afforded by the annex building of the United States Fidelity and Guaranty Co., located on German street near South. Here remain the floors and roof of a five-story building, one wall and the front almost entirely gone and the other walls but half standing, the floors resting on concrete columns independently of the walls. This is the star exhibit of the Baltimore Ferro-Concrete Co., although the transformer station of the United States Electric and Power Co., in McClellan's alley, passed through the thick of the fire without serious injury, the floors and roof here being of concrete, and the International Trust Co.'s building shows a concrete floor intact, on which the walls of the building adjoining fell a distance of 35 feet.

Until last week no load test had been applied to the floors of the annex building, although their substantial condition was evidenced by the failure of the wreckers to bring any force to bear on it sufficient to move the columns or floors. Last Thursday the load test was made under the supervision of Captain John Stephen Sewell, of the United States Engineer Corps, a recognized expert on reinforced concrete. At the test there were present City Engineer Kendall, Messrs. Strauss and Graham, Baltimore & Ohio engineers; Douglas H. Thomas, architect; John Waters, builder; Mr. Adams, engineer, and others. The test was made on the second floor, where 300 pounds per square foot were laid on one span, in the form of bricks piled three feet high and covering a space 20x11 feet. The floors were designed

for a superimposed load of 150 pounds per square foot. Under the test made the deflection of the beam was one-sixteenth of an inch. Additional load was then applied, making the total about 400 pounds to the square foot, with practically no change in results. A test load of 200 pounds per square foot was applied to the cantilever, with no resultant deflection.

With such a notably favorable result from these tests, verifying the apparent success with which reinforced concrete withstood the heat, the Ferro-Concrete Co. and other advocates of this material are certain that its use will be enormously increased for floors and walls wherever fire-resisting construction is contemplated.

#### TENNESSEE COAL AND IRON.

##### Features of the Company's Report for the Last Year.

The annual report of the Tennessee Coal, Iron and Railroad Co. shows the income account for the year ended December 31 last, compared with the previous year's account, as follows:

|   | 1903.                        | 1902.               | Inc.             |
|---|------------------------------|---------------------|------------------|
| Net earn. from operation...                     | \$2,889,957                  | \$2,595,005         | \$294,862        |
| Other income...                                 | 15,020                       | 7,684               | 7,336            |
| <b>Total profits...</b>                         | <b>\$2,904,977</b>           | <b>\$2,602,779</b>  | <b>\$302,108</b> |
| Less interest on bonds and div. on gtd. sec'ts. | 739,528                      | 750,283             | *10,755          |
| Net profits...                                  | \$2,165,440                  | \$1,852,496         | \$312,953        |
| Deduct depreciation .....                       | 411,422                      | 419,537             | *8,115           |
| <b>Surplus earn...</b>                          | <b>\$1,754,027</b>           | <b>\$1,432,950</b>  | <b>\$321,068</b> |
| Less divid. on pfd. stock...                    | 19,804                       | 23,175              | *3,311           |
| <b>Carried fwd.</b>                             | <b>to accts. \$1,734,163</b> | <b>+\$1,409,784</b> | <b>\$324,370</b> |

\*Decrease. †Balance remaining to credit of profit and loss at close of operations in 1902 was written off against plant and equipment account.

During the year 1903 there was expended for construction and permanent improvement, including new blast furnaces now in process of erection at Ensley, new blowing engines, boilers, stock bins, pumping station and water purifying plant at Ensley furnaces, new boilers at Bessemer, Oxmoor and South Pittsburg furnaces, installation of electric haulage, pumping and lighting at No. 3 Pratt (coal) mine, with power to operate No. 4, new mining equipment at Red Mountain ore mines, Dolcito quarry and the brown ore property at Greeley, Ala., and Bartow, Ga., addition to plant at the several coal mines, hot metal mixer, addition to rail mill, new electric power plant at Ensley Steel Works, new electric-light plant at Bessemer, to supply Bessemer furnaces, rolling mills and iron mines, 204 new miners' houses, etc., the sum of \$2,267,741; for purchase of land and the consolidation of mineral holdings, \$97,934; for stripping brown ore, same to be charged to cost of ore as produced, \$24,555; total expenditure for property account during 1903, \$2,390,220. During the years 1901 and 1902 there was expended for construction and permanent improvements and for purchases of land the sum of \$2,254,924, making a total expenditure for property account during the last three years of \$4,645,153, all of which was paid for out of current earnings.

During the same period there was no increase in capital stock, and the net indebtedness of the company was decreased \$564,409. There has been charged off in the same time for depreciation on old plant and equipment (namely, that which was on the ground prior to January 1, 1901), \$3,687,801, and for depreciation on land (by reason of the removal of ore and coal), same being charged to cost of product as royalty, \$663,276. The total amount charged off for the above reasons in the last three years is \$4,351,077.

**IRON SITUATION BETTER.****Birmingham Sellers Inclined to Contest Prices.**

(Special Cor. Manufacturers' Record.)

Birmingham, Ala., March 14, 1904.

The improvement in iron noted in last letter has been maintained and has grown to increased proportions. There has been not only an increase in the demand for iron, but there has been an advance in prices which has not only been demanded but obtained with very little difficulty. The majority of the transactions the past week were on the basis of \$9.50 for No. 2 Foundry. There were some sales early in the week on the basis of \$9.25 for No. 2 Foundry, but the amounts offering were soon absorbed and when the price was advanced to a \$9.50 basis there was a continuance of the demand, which increased as the week wore on. With some interests, the selling was so liberal that in the last half of the week they practically withdrew from the market or confined themselves to the consideration of business that the buyers offered. With some, there was very little inclination to sell, and when the week ended there had been considerable business turned down. The sales by the leading interests were of such magnitude that they emphasized the need for iron on the part of buyers.

Large interests were in the market, and there were several orders placed which in magnitude were much above the ordinary run of business. There was one interest which took 25,000 tons, but the price is withheld. It is therefore surmise when you hear that the price made was on the basis of \$9.25 for No. 2 Foundry. In one day the sales of one of the leading interests was 15,000 tons and the amount was duplicated by another interest. The sales for the month by one of the leading interests will reach 65,000 tons, and this amount is equaled by another interest, if reports be correct. With this as a guide, your correspondent has been at pains to correctly ascertain the total sales since the beginning of the month, and believes he is within the limits of actual transactions when he puts them at 200,000 tons. Over half this amount was sold by two interests. It is very hard to get at actual facts of sales, and amount in tons, but those intimately connected with the trade consider this a very reasonable estimate.

Anyway some of the interests do not care to sell any more at prevalent prices. The most of the sales made during the week were for delivery the second quarter, but there were sales of consequence for delivery the third quarter, with a slight advance on current values. But it is mighty hard to get at the details of these sales. When fixed by one interest the next thing is to withhold the exact terms.

There were plenty of bids for No. 2 soft at \$9.25 that were promptly turned down and the buyers came back accepting the demand for \$9.50. From one of the most prominent firms in the trade your correspondent saw an acceptance of offer at \$9.65 for No. 2 soft. It cannot be had now under \$9.75. The truth is the soft grades are in short supply and some interests are declining to quote them.

Basic iron is difficult to obtain and the price is now above No. 2 Foundry. If one in need could pay it he could probably get it at \$10. He could count himself lucky if he got it for less. The explanation of this is that the steel mills are using about what the furnaces produce, and are turning out about 1500 tons of steel products daily, including steel rails.

Some bids for very material lots of Gray Forge came into the market at \$8.25, but they were declined and a counter offer of \$8.50 was made, which brought no business.

Sellers are now disposed to contest the question of prices and several of the most conservative interests have no hesitation in saying that \$12 iron would be no surprise to them. In fact, one large interest, sold up to July, on anticipated output, with nothing to offer now, regards the situation for an advance as exceptionally strong. But no one here wants to see it go above \$12.

As to deliveries, some are now being put to it to give prompt shipment to sales maturing, or due; but there is not much growling on that account. The situation is expressed by one word, better. The Decatur Car Wheel Works, I get from a reliable source, has made a contract with the Gulf & Ship Island Railroad to furnish their supplies for a year, in the face of a vigorous competition. Perhaps this is partly due to the new blood they have recently added to the company. Friday afternoon your correspondent, in the company of the president of the Tennessee Co., made a visit to the Ensley Steel Works and noted the improvements that had been made. The force was making rails for the Virginia and Southwestern Railroad, and their inspector on the ground said he had nothing, except in the way of commendation, to say of results that had come under his observation.

On Saturday afternoon the castings of the colossal statue for the St. Louis Exposition were made at local works here and ended successfully, and this week it is understood that the statue will be completed.

J. M. K.

**An Optimistic Outlook.**

(Special Dispatch Manufacturers' Record.)

Birmingham, Ala., March 16.

The market for iron is undoubtedly better. Several sales have been made on a basis of \$10 for No. 2 Foundry. No. 3 Foundry is in fine demand at \$9.50, and sales of Gray Forge and No. 4 Foundry at \$8.50 and \$9.50 represent actual sales. The demand is for real stuff and the orders are greater than the offerings accepted. It is just a question of ability to supply the demand at current rates of the market.

Basic iron is in demand and hard to obtain at prices that exceed normal prices of No. 2 Foundry. The whole outlook is of an optimistic character, and concerning an advance of at least \$1 there is only one opinion.

J. M. K.

**SLOSS-SHEFFIELD CO.****Survey of Its Operations During the Past Fiscal Year.**

President Maben, of the Sloss-Sheffield Steel and Iron Co., in his annual report to the stockholders for the fiscal year ended November 30, 1903, refers to the decline in iron with the slackening demand, and says that in no month during the year until October was reached did the sales even approximate the company's output, so that at the close of the fiscal year the company was carrying over 90,000 tons in its yard. The heavier sales were made after the sharp decline in price. The average for all the sales of the year was only 71 cents more than in 1901, and \$1.03 less than the average for 1902. The deliveries of iron during 1903 were 83,633 tons less than the production. The prices realized for iron in the last four years, and the profits for each year, show the growth

in the business of the company. It will be noted that, while the price realized for iron in 1900 was 12 cents a ton higher than last year, the profits for the same for last year were \$396,294 greater, as follows:

|                                  | 1903.   | 1902.   | 1901.   | 1900.   |
|----------------------------------|---------|---------|---------|---------|
| Average price of iron shipped... | \$13.66 | \$12.35 | \$10.51 | \$13.78 |

Profit on iron shipped \$1,139,146 \$932,492 \$311,407 \$742,852

The operation of the Lady Ensley furnace, of which the company owns two-thirds, is not included in the foregoing statements except as to the amount of iron on hand at the close of the year.

The Philadelphia and the Hattie Ensley furnaces were thoroughly refitted on much stronger lines during the year, and have been doing good work since going into blast, and the cost of iron materially reduced.

The Philadelphia furnace was blown out on January 13 and lighted on April 18, and the Hattie Ensley was blown out on June 8 and started October 12. Additional boiler power has recently been installed at these two furnaces, as well as at the Lady Ensley. The four Birmingham furnaces are in good shape, with ample stove, boiler and engine power, though No. 1 is showing some evidence of giving way and will probably have to be repaired before long. These four furnaces increased their output 53,500 tons over last year, but the two furnaces in Northern Alabama showed a decreased output of 30,000 tons, due to each of them being out of blast for about four months.

The physical condition of the coal plants is reported as good, and the output of coal increased 17 per cent., notwithstanding the closing down of the mines in Jefferson county during the July strike.

No large expenditures were made on the Sloss iron ore mines, but two new air compressors were put in, a few boilers added and some overhauling of the machinery made. The production of ore at these mines increased 92,000 tons during the year. At the Russellville mines the product shows a decrease, caused by shortage of water for washing the ore, occasioned by an unprecedented drought which extended over 90 days. This decrease, however, occasioned no stoppage of any of the furnaces, the increased output at the hard ore mines having enabled the company to furnish the limited amount required to make up the deficiency of brown ore.

The last of the 200 coke ovens at Flat Top mines was not completed until two months before the close of the fiscal year, but the production of coke for the year increased 96,147 tons.

Following is the comparison of outputs for the years 1903, 1902 and 1901:

|               | 1903.     | 1902.     | 1901.     |
|---------------|-----------|-----------|-----------|
|               | Tons.     | Tons.     | Tons.     |
| Pig iron .... | 311,003   | 287,685   | 218,857   |
| Coal ....     | 1,501,956 | 1,287,826 | 1,042,298 |
| Coke ....     | 549,201   | 453,054   | 339,199   |
| Brown ore ... | 260,539   | 208,700   | 234,661   |
| Red ore ....  | 377,080   | 284,482   | 221,789   |
| Dolomite .... | 115,635   | 101,069   | 101,349   |

The company has secured a clear title to the Lady Ensley property, which includes 16,000 acres of brown ore lands, partly developed, with ore washers, steam shovels, etc.; 14,000 acres of coal land, a large proportion of it carrying a seven-foot vein; a going mine, coal washer, coke ovens, etc.

During the year the company paid out for real estate (not including the Lady Ensley property), repairs to furnaces and improvements at the mines, \$425,803. Attached to President Maben's report are statements of resources, liabilities, earnings for the year, etc., from which we take the following:

Statement for fiscal year ending November 30, 1903:

**RESOURCES.**

|   |                 |
|---|-----------------|
| Property account .....                            | \$18,311,416.84 |
| Treasury securities .....                         | 259,700.00      |
| Stocks and bonds of other companies .....         | 311,904.67      |
| Cash, bills and accounts receivable .....         | 1,149,192.33    |
| Supplies, raw and finished material at cost ..... | 700,071.12      |
| Stocks in company's stores and warehouses .....   | 192,004.02      |
| Extraordinary repair and renewal fund .....       | 208,548.29      |
| Insurance and taxes, unexpired .....              | 17,073.18       |
|   | \$21,240,005.45 |

**LIABILITIES.**

|  |                 |
|--|-----------------|
| Capital stock, preferred .....                     | \$6,700,000.00  |
| Capital stock, common .....                        | 7,500,000.00    |
|  | \$14,200,000.00 |
| Sloss Iron & Steel Co.:                            |                 |
| Mortgage 6 per cent. bonds, 1920. \$2,000,000.00   |                 |
| Mortgage 4 1/2 per cent. bonds, 1918. 2,000,000.00 |                 |
|  | 4,000,000.00    |
| Current accounts .....                             | 469,646.37      |
| Pay roll (balance of current month) .....          | 78,468.65       |
| Bills payable .....                                | 176,128.12      |
| Profit and loss .....                              | 2,315,762.31    |
|  | \$21,240,005.45 |

Statement showing earnings for fiscal year ending November 30, 1903:

|   |                |
|---|----------------|
| *Profit on pig iron delivered: After deducting for depreciation on iron ore and twenty-five cents (\$0.25) per ton on iron for extraordinary repairs and renewals ..... | \$1,139,146.59 |
| Profit on coal (after deducting for depreciation) .....   | 216,265.38     |
| Profit on coke .....  | 175,961.02     |
| Ore and dolomite sales .....  | 64,342.86      |
| Rents, royalties, stores and other revenues .....   | 208,939.40     |
| Two-thirds of earnings of North Alabama Furnace Co. ....  | 58,387.92      |
|   | \$1,863,043.26 |

**DEDUCTIONS.**

|  |             |
|--|-------------|
| General expense accounts not charged ..... | \$35,616.31 |
| In cost sheets .....                       | 31,786.27   |
| Taxes and license .....                    | 67,402.58   |

|                            |              |
|----------------------------|--------------|
| Net earnings .....         | 1,795,640.68 |
| Year's bond interest ..... | 210,000.00   |

|  |              |
|--|--------------|
| Surplus for 1903 .....                                 | 1,585,640.68 |
| Year's dividends, 7 per cent. on preferred stock ..... | 469,000.00   |

|  |              |
|--|--------------|
| Surplus for year 1903, after dividends ..... | 1,116,640.68 |
| Net surplus from 1902, after dividends ..... | 1,190,121.63 |

Surplus, November 30, 1903, \$2,315,762.31

\*Product of Lady Ensley not included.

Working capital, November 30, 1903:

|   |                |
|---|----------------|
| Cash, bills and accounts receivable .....                         | \$1,149,192.33 |
| Raw and finished material on hand, at cost .....                  | 688,035.14     |
| Merchandise and supplies in company's stores and warehouses ..... | 294,040.00     |
| Insurance and taxes, unexpired .....                              | 17,078.18      |
| Treasury securities, stocks and bonds, at market value .....      | 397,839.45     |
|   | \$2,546,185.10 |

|  |              |
|--|--------------|
| Contra.                                    |              |
| Bills payable .....                        | \$176,128.12 |
| Pay rolls (balance of current month) ..... | 78,468.65    |
| Accounts payable (current business) .....  | 469,646.37   |
|  | 724,243.14   |

|   |                |
|---|----------------|
| Balance working capital in business ..... | \$1,821,941.96 |
|---|----------------|

**Fine Alabama Marble.**

G. Moretti, a sculptor, has found in one of the quarries near Talladega, Ala., marble which he believes will polish superior to the great Italian marble. In enthusiastic comment over his find he said: "There is nothing in the world that is equal to it. The grain is excellent and it responds readily to the chisel. It takes a fine edge and can be as sharp as a knife. It is so soft to work with that it is a delight. You see here. With two days' work I have made a most beautiful head. I have never enjoyed working as I do with this marble. The piece was taken from the top of the ground, and I asked to be allowed to take it to try. Sculptors from all over the country would want this marble if they knew it was here."

It is reported that gold and corundum have been discovered on the farm of J. W. Dunn, near Hopper, in the southeast portion of Henry county, Va.

**IN BATSON OIL FIELD.**

**The Scare Caused by the Appearance of Salt Water in Gushers.**  
 [Special Cor. Manufacturers' Record.]

Beaumont, Tex., March 12.

Salt water appeared in the Batson gushers last Wednesday, the 9th instant, to an extent that caused much uneasiness among the operators in that field. It was nothing short of a good, stiff scare, and already the day is being referred to as "Black Wednesday." It seemed to cause an undue amount of excitement, and one of the chief results has been an advance in crude prices all along the line of 11 to 13 cents a barrel, with the end not yet in sight. A week ago oil could be bought at Beaumont and Sour Lake at from 29 to 32 cents. To-day the price ranges from 42 to 45 cents, with prospects of a further advance if the heavy buying for speculative purposes continues. Demand for fuel oil is at low ebb. One broker who operates a string of private tank cars said to-day that he had not received an order in four days, excepting one for a single car of oil. The railroads, the big power plants, the mills and brewery plants, which constitute the largest users of fuel oil, have stocked up on cheap oil and will not be in the market for months.

The salt water appearing at Batson is hot. It is said to vary from 135 to 145 degrees Fahrenheit, and its very hotness seems to be the cause of cold feet in some quarters. One effect of the appearance of water in some of the wells has been to bring about an immediate cessation of work on much of the earthen tankage that was being built near Batson. Work has also been knocked off temporarily on one steel tank at Saratoga, six miles from Batson, and the point from which Batson oil is relayed by the pipe line companies to Sour Lake and Beaumont. Probably several hundred teamsters are looking for jobs—and all on account of the salt water.

Operators who have met such conditions before, and who were not unprepared for the developments of the past week at Batson, are undismayed. One of them, representing very large interests at Batson, said to-day:

"The field is producing not less than 75,000 barrels of oil a day, and that would be considered phenomenal if it were not for the fact that the production was probably 20,000 or 25,000 greater before the several wells were affected by salt water. The oil is there and it would probably be better for the entire field if it had to be pumped. No one could have just cause for complaint, on general principles, if the field were to play out to-morrow, for it has produced in two and one-half months more than 3,500,000 barrels of oil. Many of the wells are not affected by the salt water and are giving up the usual amount of oil."

The Britton well, one of those which was reported to be salt water, did 3,500 barrels of oil yesterday, according to the gauges. This indicates that hearsay statements concerning the appearance of water in the field cannot be taken for more than they are worth, for it was stated with positiveness by some of the street gossips Thursday that the Britton well was doing nothing but salt water.

The shipments of oil from Port Arthur during the period from February 28 to March 11, inclusive, amounted to 305,630 barrels, counting a cargo of 65,602 barrels of water-white distillates loaded at the Gulf Refinery docks on February 17 on the Shell Transport & Trading Co.'s steamer, Goldmouth, consigned to Dover, England.

The Texas Co. loaded its first cargo of solar oil on February 29 on the steamer Northman, consigned to the Standard Oil Co., at Bayonne, N. J. The shipment consisted of 22,493 barrels, and was the first run of solar oil from the Texas Co.'s Port Arthur refinery. This plant now consists of four 1000-barrel stills, two agitators and the usual equipment of small tanks. In the near future it is to be enlarged by the addition of eight stills of 1000 barrels capacity each. This will increase the refining capacity to a total of 12 1000-barrel stills. Two steel storage tanks of 55,000 barrels capacity each, are also to be added to the present storage, consisting of seven 50,000-barrel tanks, one 55,000-barrel tank and one 37,500-barrel tank.

Compared to the Gulf or Security refineries, the Texas Co.'s plant will not be in the same class, but it is the policy of the management to increase the capacity as conditions warrant such action, and there seems to be little doubt that eventually the Texas Co.'s refinery will be among the big ones in this region. The Gulf plant has more than 50 large stills, and the Security plant between 40 and 50.

Up to and including March 11, the shipments of crude and refined petroleum from Port Arthur, since January 1, have amounted to 1,388,287 barrels.

From Sabine Pass, in the period from February 23 to March 7, inclusive, four cargoes were shipped, three being crude and the other a shipment of 23,000 barrels of solar oil from the Security refinery to the Standard Oil Co. at New York. The Security Co. also shipped a cargo of 33,000 barrels of crude to New York. The Higgins Oil and Fuel Co. shipped the other two cargoes from this port, aggregating 32,136 barrels of crude, to S. Pearson & Son, at Coatzacoalcos, Mexico. This oil, it is understood, will be used for fuel on the railroad which extends across the Isthmus of Tehuantepec from Coatzacoalcos to Salina Cruz, on the Pacific. Pearson & Son are the owners of the line, and their representative visited Beaumont last month to close the purchase of fuel oil from the Higgins Co. Captain A. F. Lucas, who brought in the first Spindle Top gusher, has been prospecting on the isthmus for Pearson & Son, and has drilled two wells, neither of which has been a producer of oil. Captain Lucas was in Beaumont in February, and visited Batson in the course of his stay.

The oil shipments from Sabine Pass since January 1, up to and including March 7, have amounted to 405,956 barrels.

The value of Texas oil for refining purposes is obtaining tardy recognition in the North. After contending from the start that the petroleum produced in this region is low grade, and that the greater bulk of it is fit only for fuel use, the light is gradually being permitted to break, and in accounting for the drop in the price of Northern credit balances the main reason urged is that Texas is now supplying a satisfactory grade of illuminating oil, which is rapidly cutting into the markets formerly supplied entirely from the Pennsylvania, Ohio and other Northern oils.

Texas oil is being advertised as the most important new factor in the refined oil markets of this country and Europe. The shipment, on February 17, of 65,000 barrels of water-white distillates from the Gulf refinery at Port Arthur to Dover, England, is the best evidence of the figure Texas refined is cutting in the English market. The Gulf refinery is constantly being enlarged; the same is

true of the Security refinery, and, as already detailed, the Texas Co. has decided to make its refinery three times the present capacity.

This acknowledgment of the importance of Texas oil to the petroleum industry of the world—an importance until recently denied with the statement that the oils of this district are good only for fuel purposes—means more to the oil industry of this region than can be foreseen at this time. It means that, on a refining basis, the Texas fields will be a permanent factor in the wealth and prosperity of the State; it means that the incoming of a large amount of capital that has remained out until the refining qualities of Texas oil have had a thorough test, resulting in their favor, and it means that a new element has entered into the situation which will add a material impetus to the development of new fields. Last, but not least, it probably means that a more stable market will be established than has existed with the fields on a fuel-oil basis. This, most of all, is desired.

HOLLAND S. REAVIS.

**TEXAS PETROLEUM.**

**Some Interesting Facts Summarized by a Leading Producer.**

Some very interesting petroleum facts are contained in a little publication just issued by the J. M. Guffey Petroleum Co., which, through production and purchase, handles a large percentage of the Texas oil, and the Gulf Refining Co., an offshoot of the Guffey Co., which makes claim to having, in its Port Arthur, Texas, plant, the largest independent oil refinery in the world. The Manufacturers' Record last summer printed a letter from a special correspondent who visited the Texas oil fields, in which it was pointed out that the Texas petroleum, contrary to declarations made when the field was first brought in, was altogether susceptible of treatment by refiners, and that, while the oil is of a different grade and nature from that with which oil refiners were familiar, experiment and the adoption of suitable processes were bringing very satisfactory results. A good illuminating oil, as well as naphtha, etc., was being obtained, while, because of the asphaltum base, a very superior lubricating oil was secured. High viscosity, high specific gravity and low cold test are the characteristics which make lubricating oil from the Texas petroleum especially desirable and in great demand in the higher latitudes of the North and East.

The pamphlet here mentioned gives additional facts, including a report of shipments by water from Port Arthur for 1902 and 1903, by which it appears that there was 176 per cent. increase—2,739,773 barrels in 1902 and 7,572,849 barrels in 1903. Of these shipments about 50 per cent. were handled by the Guffey companies. The total production of oil in the Texas-Louisiana field for 1903 is given at 14,100,000 barrels. The stock of this oil in storage December 31, 1903, is estimated at from 7,000,000 to 8,000,000 barrels, as against 7,000,000 barrels December 31, 1902.

As Texas petroleum yields a large percentage of homogeneous gas oil, its use for making gas has almost superseded Northern oils in the East and on the Atlantic seaboard. The announcement is made that so great is the foreign and domestic demand for the manufactured products of the Gulf Refining Co.'s plant, that the refinery is taxed to its utmost capacity. The pamphlet contains reports of Mr. Boerton Nedwood, of London, ranking as one of the greatest petroleum

experts in the world, on the Gulf Refining Co.'s kerosene, by which it appears that the specific gravity at 60 deg. F. is .823; flash point, Abel test, 83 deg. F.; color, prime white; odor, good merchantable; sulphur, 0.1 per cent. The burning test showed: Illuminating power, initial, 26; after three hours, 24.8; after six hours, 24.7; average for six hours, 25.2; diminution in illuminating power during six hours, 5 per cent.; consumption of oil per hour, 1193 grains; consumption of oil per candle-power, 47.4 grains.

"From these results," says Mr. Nedwood, "we have formed the opinion that the oil represented in the sample would be found, in practical use, a thoroughly satisfactory illuminating agent."

And this from an oil the universal opinion of which among the oil trade was, at the time of the discovery, that it could not be successfully refined, and was useful only for fuel!

**FOR GREATER GEORGIA.**

**Work of an Organization for Building Up the State.**

Georgia is just now pushing out for larger recognition by the world as an inviting field for investment in a way that calls for hearty commendation of her enterprise. Through an organization called the Greater Georgia Association, a concerted movement by 30 towns and cities of the State is being made for the upbuilding of the agricultural interests and industrial resources of all Georgia. An executive committee is directing the work, the membership of which is composed of leading public-spirited business men, manufacturers, professional men, farmers, etc., representing the State generally, and to the co-operation of cities and counties is added the powerful help of the railways of Georgia. The secretary of the association is Mr. W. G. Cooper, of Atlanta, a former newspaper man well known in the South, chief of the Publicity Department of the last Atlanta Exposition, and a man especially well qualified for the work in hand. The president of the association, Mr. J. K. Orr, long time president of the Atlanta Chamber of Commerce and a wholesale merchant, is one of the most progressive men in Georgia.

Georgia has led in many advance movements as a Southern State, and she is setting an example here that others might follow to distinct advantage. Heretofore cities and communities have frequently organized with aims similar to those of the Greater Georgia Association, but nothing so comprehensive has been undertaken elsewhere on the part of an entire State. Some extensive advertising is being done, with the purpose of covering broadly the entire country and arousing the interest of investors, manufacturers and prospective settlers in the opportunities that exist in Georgia. This advertising is backed up by pamphlets and books giving information as to various interests and sections, water-power, timber, mining, manufacturing, general farming, fruit growing, dairying or whatever the seeker after information may designate as specifically appealing to his consideration.

It is pointed out that Georgia, the Empire State of the South, and the largest State east of the Mississippi, has a vastness and variety of resource which must make it one of the richest States in the Union. With an altitude varying from sea level to 5000 feet above it, Georgia's four degrees of latitude equal 10 in the variety of its products. Only a little more than one-fourth of the land is improved, and prices, although advancing, are yet comparatively very low.

With the stimulus to all the South which the construction of an isthmian canal will give, the Greater Georgia Association sees in the present an opportunity of the most attractive sort for investments of every kind. The organization recognizes that never before has so much interest been manifested in the South by the farmers and capitalists of the North, and rightly concludes that that section will receive most benefit which most industriously and effectively presents its claims for consideration. The Greater Georgia Association is a model by which other such organizations may well profit, in that it is a business proposition based on business principles. With a definite object in view, it has secured capital and facilities for carrying its purposes into effect. The trouble with such bodies, as a rule, is that they have no organization, no money and no facilities for transacting business. Until such an organization is made a business matter it cannot possibly have any force and effect. The organizers of the Greater Georgia Association evidently know their business. They introduced the organization to the public a year ago or so with a notable banquet, at which Mr. Samuel Spencer and other distinguished guests were present and delivered serious and important addresses, and the growth and progress of the association has been steady and substantial ever since.

#### ACRES OF ASPHALT.

##### Character of the Deposits in Indian Territory.

In view of the fact that 7239 acres of asphalt land in the Indian Territory will be disposed of at public auction in a few months, it may be interesting to many people to know something about these deposits. Over 2000 acres of these lands are in the Tishomingo quadrangle, which has been surveyed, topographically and geologically, by the United States Geological Survey. Mr. Joseph A. Taff is the author of the geologic folio which was recently published as a result of these surveys. In this he gives a detailed description of the asphaltic deposits of the quadrangle.

Those deposits which are of economic importance are found in the vicinity of Gilsonite, near the northwest corner of the quadrangle. They occur chiefly as impregnations in the sandstones, limestones, conglomerates and grits of three distinct geologic formations.

The richer bituminous sandstone contains from 7 to 12 per cent. of bitumen, and grades outward into the barren sand in peculiar ways. In some instances the bitumen occurs in layers or streaks parallel with the bedded structure and alternating with the purer and at present porous sand. There are at least five areas of economically valuable bituminous sandstone in the vicinity of Gilsonite. Four of these are in the Tishomingo quadrangle and the fifth is just beyond its border, on Rock creek, two miles a little north of west from Gilsonite. In the mine at Gilsonite the impregnations of bitumen have entered some of the siliceous and fossiliferous limestone layers. A second area of bituminous sandstone occurs nearly a half mile west of Gilsonite. In the N. W.  $\frac{1}{4}$  of sec. 22, T. 1 S., R. 3 E. there is a third area of bitumen impregnating the sandstone. Here there are three quarries, known as the Kirby mines. The fourth area of the bituminous sandstone in the quadrangle is in the eastward extension of the same sandstone member as that in which the Kirby mines are located. The two mines located in the bituminous sandstone of this area occur half a mile north of Gil-

sonite, in the south side and west end of a low ridge capped by a heavy limestone conglomerate. The fifth and least valuable bituminous sandstone deposit known in this vicinity occurs at the base of the high bluff in Rock creek, near the southwest corner of Sec. 21, T. 1 S., R. 3 E. Only a small area of the highly bituminous sandstone occurs here.

The better grade of bituminous limestone carries 5 to 6 per cent. of bitumen. It occurs in two areas, one at Gilsonite and the other one mile to the southwest. Two mines have been located upon the bituminous limestone one mile southwest of Gilsonite. The larger of these is at the extreme west end of the Viola limestone ridge and the other on the crest, about 600 feet farther east. The bituminous limestones are most advantageously situated for economical mining, being in a bluff 50 feet high, at the terminus of the ridge where the rocks are steeply tilted southward, exposing more than 300 feet of strata. Of the 340 feet of bituminous limestone at this locality, 128 feet in the lower part contain 5 to 6 per cent. of bitumen.

Certain beds about half a mile west of Buckhorn contain the richest bituminous deposits known to occur in this field. The bituminous and associated beds consist of conglomerate, grits, shale and limestone interstratified. The richest bed, which is locally conglomerate at the base and about 10 feet thick, will produce approximately 14 per cent. of bitumen.

#### Trade with Mexico.

Business men of Galveston and other Texas cities are making strenuous efforts to develop business with Mexico. Referring to that, Captain G. M. Bryde said recently:

"Texas grows many things needed in Mexico, and there are many things grown and manufactured in other States in the Galveston territory which find a ready market in that country. Mexico gets the most of her cotton from this country, and Galveston is the place to ship it from. They also are large users of packing-house products, and again we find Galveston advantageously located for the exportation of canned provisions. They use large quantities of American lumber, and Texas has it to sell. They want our hay, corn and oats, fancy live stock, groceries, shoes, hats, machinery and many other products which are grown or manufactured in Texas and adjoining States. Yucatan imports everything they use, as do other sections of the republic, and the most of what they use can be sent through the port of Galveston with less expense and with quicker dispatch than from any other port. On our last voyage we took a consignment of shoes and hats from Galveston, and we take every voyage large consignments of goods from Galveston merchants.

"In return Mexico has sisal grass, twine, coffee, hides and fine woods, all of which are in demand in the United States. Consignments of coffee to merchants in the United States through the port of Galveston become larger every voyage, the reason being the quick dispatch received. Some of this coffee goes to New York, but the larger part of it is consigned to Cincinnati, St. Louis, Kansas City and other cities in the Middle West. Mexico's greatest buyers of coffee are in Europe, and much of their crop is shipped to Europe via New York. It can be shipped cheaper via Galveston, and we believe that the trade will soon realize this. Sisal grass and twine are always in demand, and we are getting our share of this trade."

#### RAILROADS.

[A complete record of all new railroad building in the South will be found in the Construction Department.]

#### AN OUTLET FOR COAL.

##### Confirmation of Report That the Deepwater and Tidewater Roads Will be One.

Mr. William N. Page, president of the Gauley Mountain Coal Co., of Fayette county, W. Va., writes from Ansted, in that county, to the Manufacturers' Record concerning the Deepwater Railway, of which he is chief engineer. His letter says:

"The Deepwater Railway has adopted and is now locating upon the ground, a branch line from Bluestone river, at the mouth of Widemouth creek, across to East river, where it will connect with the Tidewater Railway on the State line, between Giles and Mercer counties, and from which point the Tidewater Railway will extend to Hampton Roads or some point near Norfolk.

"The length of the Tidewater road from the Virginia line to Norfolk will be 334 miles, with no grade eastward exceeding 25 feet to the mile (and only 12 miles of this), and with a continuous down grade from the Allegheny summit near Blacksburg."

This confirms the report from Roanoke, noted in the Manufacturers' Record last week, that the Deepwater Railway would be connected with the Tidewater Railway, which latter was lately incorporated at Staunton, Va., by T. D. Ranson and others, to build from the West Virginia State line to tidewater at the mouth of the James river. The Deepwater Railway is now being built from Deep Water on Pool No. 2 of the Kanawha Navigation in Fayette county, W. Va., to the Bluestone river in Mercer county, W. Va., about 90 miles. At the beginning of this year five miles of line had been finished, with 55 miles more under contract and with grading in progress, and about 30 miles more to be let very shortly. The Tidewater Railway, which will be the Virginia end of the line, is now being surveyed, according to reports from Roanoke, by engineers under the direction of Sooysmith & Co., 71 Broadway, New York, B. T. Elmore being engineer in charge.

The backers of this enterprise, as heretofore reported, are said to be Northern and Eastern men of large means, and rumor says that the Gould and Rockefeller interests are behind it. With the exception of the incorporators of the Tidewater Railway, the only gentlemen whose names are mentioned in connection with the plan are the members of the board of trustees of the Loup creek estate, of which Mr. Page is one, the others being Messrs. J. O. Green and Walter P. Bliss.

#### TOMBIGBEE VALLEY.

##### A Railroad Which Could be Connected with the Carrollton Short Line.

Concerning the recently incorporated Tombigbee Valley Railroad, Mr. William G. Cochrane, mayor of Tuscaloosa, Ala., writes the Manufacturers' Record as follows:

"The Tombigbee Valley Railroad Co. was organized in Mobile, Ala., on March 5, 1904. The officers are: John T. Cochrane, president; William G. Cochrane, vice-president and treasurer, and Charles P. Duke, secretary. Mr. John T. Cochrane was also made general manager of the company. The headquarters

and principal offices of the company are at Fairford, in Washington county, Ala. The new company has purchased the Tombigbee & Northern Railway's line of railroad from Nannahubba Bluffs, a point on the Tombigbee river 30 miles from the city of Mobile, and extending 50 miles northward into the interior, through a yellow pine forest of great extent. The Tombigbee Valley Railroad is of standard gauge, and connects with the Southern Railroad at Calvert, Ala., and with deep water on the Tombigbee river at Nannahubba Bluffs, where the company has extension wharves and dock facilities for transferring lumber to vessels for foreign shipment."

Mr. John T. Cochrane, it may be noted, is also president and general manager of the Carrollton Short Line, which runs from Aliceville, in Pickens county, Ala., north via Carrollton to Reform, on the Mobile & Ohio Railroad. The position of the Tombigbee & Northern and the Carrollton Short Line is such that the building of about 120 miles of line between Penny Mill, in Washington county, through Choctaw, Sumter and Pickens counties, would connect them and make a railroad through the western counties of Alabama, a possible transportation enterprise which has been discussed for some years.

#### MISSOURI PACIFIC REPORT.

##### Expenditures for Improvements Continue to be Made out of Surplus.

The annual report of the Missouri Pacific Railway System for the year ended December 31, shows gross earnings of \$43,095,769, an increase of \$5,600,071 as compared with 1902. The expenses were \$29,415,004, an increase of \$4,371,813; the net earnings were \$13,680,765, an increase of \$1,228,268; the total net income was \$17,457,730, an increase of \$2,583,094. After the payment of fixed charges, taxes, etc., and dividends, there was left a surplus of \$3,696,378, an increase of \$1,006,866.

The company announces that the policy of making liberal expenditures upon the property out of surplus earnings was continued during the year and the extensive improvements planned two years ago are now nearing completion. The improvement work referred to in previous annual reports has resulted in the practical rebuilding of 634 miles of main line, not including the rebuilding of 158 miles of the Little Rock & Fort Smith Railway, between Little Rock and Van Buren, Ark., and the economic benefits therefrom, which cannot be fully realized until the line is completed, should begin to be reflected in decreased cost of transportation during 1904. During 1903 there was expended, out of the surplus, for extraordinary improvements, the sum of \$2,228,283, which is represented in heavier rails, new side tracks, grade reductions, etc. It is anticipated that the surplus for the current year will be more than sufficient to meet the expenditures for improvements.

Concerning the purchase of Wabash stock by the Missouri Pacific, President George J. Gould says: "A growing tendency toward consolidation and other methods of uniting control among railroads east of Chicago and St. Louis has dictated the precaution of taking moderate steps to guard the traffic interests of the Missouri Pacific system against any possible harmful development of this tendency in respect to eastern outlets and sources of business through those gateways. In this view and for the purpose of further protecting the large early investment of the Iron Mountain Co. in the debenture bonds of the Wa-

bash Railroad Co., the management has, after careful consideration, deemed it wise to acquire a substantial interest in the preferred stock of the latter company. This interest, while not representing a control, is believed to be sufficient to fully cover the purposes which determined its acquisition."

#### ANOTHER COAL ROAD.

##### A Link to Make a Route from Pittsburg to Newport News.

A report from New York says that the Meadow River Railway, recently chartered in West Virginia, will form a link in a railroad line to extend from Pittsburg to tidewater on the Chesapeake Bay. The Meadow River line, according to the report, will be built from Ronceverte, W. Va., on the Chesapeake & Ohio Railway, to Richwood, W. Va., where it will connect with the Baltimore & Ohio Railroad. This would form the link necessary to make such a through route. A press report says that vice-president J. M. Schoonmaker of the Pittsburg & Lake Erie Railway, admits that his line and the Chesapeake & Ohio are to be connected indirectly by this means.

The route will be over the Pittsburg & Lake Erie from Pittsburg to Connellsville, Pa., thence over the Baltimore & Ohio, via Fairmont, to Richwood, W. Va., thence over the Meadow River line (to be built) to Ronceverte, and thence over the Chesapeake & Ohio to Newport News. Massachusetts capitalists interested in coal mines are said to be behind the plan. The incorporators of the Meadow River road are Robert A. Gorham, West Newton, Mass.; R. W. Roydon and F. A. Beckford, Beverly, Mass., and John P. Hill and J. E. Carroll, Boston.

#### Augusta to Elberton.

Advices from Augusta, Ga., report that the Augusta & Elberton Railway Co. is being organized to build a line from Augusta, northwest to Elberton, Ga., 60 miles. Elberton is on the Seaboard Air Line, and the Southern Railway has a branch which terminates there. It is further reported that the new company has purchased all the rights of way and franchises of the Augusta & Chattanooga Railroad & Banking Co., organized in 1886, and which proposed to build a road through the same territory. About 20 miles of line were graded and is said now to be in fair condition. Among those reported interested are F. T. Lockhart, C. B. Young and J. E. Hogan, of Augusta, and R. E. Ramsey, of Columbia county, Ga. The section through which this road will run is now without railway facilities.

#### Bee Tree Railroad.

Mr. S. F. Chapman, manager for J. S. Bailey & Co., writes from Asheville, N. C., to the Manufacturers' Record that the Bee Tree Railroad Co. has been incorporated to build a line eight miles long, which will leave the Southern Railway at Iron Ore Cut, the objective point being Craggy mountain. The territory furnishes timber, corundum and magnetic iron ore. Proposals for bids will be out in about a week. John J. Dalton is engineer in charge.

#### Alabama Northern.

Mr. Bennett W. Pruet, one of the incorporators of the line, writes from Ashland, Ala., to the Manufacturers' Record as follows:

"The Alabama Northern Railway Co. has been duly incorporated. Our line

will be seven miles in length, and will connect Ashland with Pyriton, Ala. It will be connected with the Eastern Railway of Alabama, which is connected with the Louisville & Nashville Railroad. It traverses a section well timbered and somewhat hilly, and the latter portion is thought to contain valuable iron ore and pyrites. Mr. George Giles, now in St. Louis, Mo., made the present survey about a month ago, but another engineer will look after locating. Within 30 days we expect to be ready to receive bids for construction and equipment."

#### Suwannee & San Pedro.

Mr. R. N. Ellis, Jr., chief engineer of the Suwannee & San Pedro Railroad Co., writes from Live Oak, Fla., to the Manufacturers' Record, that he has just made a preliminary survey of the proposed extension from Perry to Springhill, on the Carrabelle, Tallahassee & Georgia Railway. The line will be 50 miles long and will require two bridges, one over the Aucilla river and the other over St. Marks river. The line will run through Taylor, Jefferson, Wakulla and Leon counties.

#### New Yard Near Atlanta.

Mr. Hunter McDonald, chief engineer, Nashville, Chattanooga & St. Louis Railway, writes the Manufacturers' Record from Nashville, Tenn., as follows: "This company has recently purchased 42 acres of land five miles north of Atlanta on the line of the Western & Atlantic Railroad, and has closed a contract with the Southern Contracting Co. for grading a yard on this property. There will be about 125,000 cubic yards of excavation to be handled. The yard is intended for relief of our facilities in Atlanta, which of late have been considerably overtaxed."

#### Big Electric Railway Plan.

The Seaboard Traction Co. has been chartered at Norfolk, Va., to build an electric railway for passengers and freight from Portsmouth to Petersburg, Manchester and Richmond, with branch lines, and a total trackage of 300 miles. The officers are: President, Luther R. Britt; first vice-president, W. H. Robinson, of Norfolk; second vice-president, George L. Barton, of Suffolk; treasurer, W. D. Southall; general manager, George H. Lewis, Norfolk; secretary and auditor, Lee Britt, Suffolk.

The Netherland Chamber of Commerce in America, No. 68 Broad street, New York, invites correspondence from persons desiring particulars about the new customs regulations recently submitted to the Netherland Chamber of Representatives by the Government, the main purpose of which is to subject to a tax of from 2 to 12 per cent. some 450 manufactured articles, raw material remaining on the free list.

The Commercial Club of Rock Hill, S. C., of which Mr. J. G. Anderson is president, is seeking to employ as its secretary a man of high business capacity who will give his entire time to the work of the club, which includes every effort for the development of Rock Hill. At its last meeting the club increased the number of its active members from 89 to 179.

The directors of the Jamestown Exposition Co. have authorized the executive committee to have the deeds for the site of the exposition executed immediately, in order that the deal may be finally closed.

## MANUFACTURERS' RECORD.

### LUMBER.

#### Texas Lumbermen.

Lumber manufacturers and other citizens of Orange, Tex., are preparing for the eighteenth annual convention of the Lumbermen's Association of Texas, which will meet at Orange April 12, 13 and 14. This promises to be the most important meeting of the association for many years, and Secretary Carl F. Drake estimates that the attendance will be about 600, and that Orange will be prepared to accommodate all who come. The lumber manufacturers who have interests at Orange are anxious to get more closely acquainted with the lumber dealers through the territory contiguous to the mills of east Texas, and to that end have invited the lumber dealers of Kansas, Louisiana, Oklahoma and Indian Territory to attend the convention and they expect a good representation from all those quarters. The programme outside of the business of the convention includes a steamboat excursion down the river and across Sabine Lake to the jetties, to enable the visitors to understand the advantages that will accrue to Texas, the entire South and the Northwest through the opening of a ship canal connecting the Sabine and Neches rivers with Deepwater at Sabine Pass. Another feature will be an excursion by the Orange & Northwestern Railroad into the heart of the great long-leaf pine forest and a visit to one of the big logging camps there.

#### Norfolk Mills Busy.

In the Norfolk section lumber orders are accumulating, with stocks small, as the output of the mills has gradually decreased because the streams through which rough timber is usually towed have been frozen. The usual surplus has been exhausted, and with the setting in of mild weather the mills are expected to rush work to supply the demand. Mr. E. C. Fosburgh, president of the Fosburgh Lumber Co. and owner of a large plant in Berkley, is of the opinion that this demand will be largely increased when the rebuilding of Baltimore gets under way. The mills of the Norfolk section, while having their hands full to supply the regular trade, will make an effort to meet Baltimore's needs. Every available means for cutting and delivering rough timber has been arranged, and from now on rafts of timber from the Carolina lands, from along the James river and other sections of Virginia will arrive in large numbers.

#### Line to Timber Lands.

Mr. H. H. Prince writes from Greenville, S. C., to the Manufacturers' Record concerning his railroad plans as follows:

"At present I expect to build a railroad 21 miles long to a mountain resort and timber lands. Am also contemplating building a much longer line, but am not ready to say anything definite. My short road is to reach about 100,000 acres of the finest hardwood timber lands."

#### Logging on the Tennessee.

Because of low water, the logging season on the Tennessee river was delayed several weeks this year, but now logs are arriving at Chattanooga at every tide, and more than 8,000,000 feet of logs have been received there since the middle of January. Much timber was cut last summer on the Clinch and Powells rivers, and has been waiting for high water to

be floated down. Southwest Virginia and East Tennessee supply the Chattanooga mills, which consume about 25,000,000 feet of logs a year.

#### Moving to New Orleans.

The Industrial Lumber Co., of Beaumont, with a capital of \$1,250,000 and an annual capacity of 125,000,000 feet, will make its headquarters at New Orleans, where it will be in immediate touch with the head offices of all the rail lines over which it does business in Texas, Louisiana, Arkansas, Missouri, Arizona, New Mexico, Colorado and other Western States, and convenient to export facilities.

#### Lumber Notes.

In seven months the building material received at New Orleans included 86,001,324 feet of lumber.

It is reported that the president of a Beaumont lumber concern and other local capitalists are interested in a timber deal in Texas involving \$1,500,000.

Preparations for the lumber exhibit of Texas at the St. Louis Exposition has developed the fact that there are nearly 100 kinds of wood in the State having commercial value.

W. S. Rodgers, of Hattiesburg, Miss., was the lowest bidder on a contract for 1,470,000 feet of yellow pine timber, to be used by the government in building dams and locks in the improvement of the Cumberland river in Tennessee.

During February the mills in the Lake Charles, La., district shipped 13,192,622 feet of lumber, 25,000,000 shingles and 250,000 linear feet of fencing. For some time past the market has been a little slow, but with the coming of spring the demand for yard stock is steadily increasing.

The Cape Fear Lumber Co., of Wilmington, N. C., is preparing to develop 15,000 acres of fine timber land, which are expected to cut between 20,000,000 and 30,000,000 feet, and to that end is placing its logging road from Richardson to Clarkton. The logs will be shipped to Wilmington.

In a lecture before the New York University School of Commerce, Mr. W. H. Wetmore said that the consumer of lumber is face to face with a threatened famine, and that to meet the situation there should be greater economy in the consumption of forest products and the adoption of approved forestry methods.

#### The Cotton Movement.

In his report for March 11, Col. Henry G. Hester, secretary of the New Orleans Cotton Exchange, shows that the amount of cotton brought into sight during 103 days of the present season was 8,881,064 bales, a decrease under the same period last year of 240,454 bales; exports were 5,038,832 bales, a decrease of 359,305 bales; takings by Northern spinners, 1,778,477 bales, an increase of \$1,808; by Southern spinners, 1,333,204 bales, an increase of 48,906 bales.

Messrs. J. J. Littlejohn, of Jonesville, S. C., and D. D. Little, of Spartanburg, S. C., have incorporated the Crescent Manufacturing Co., with capital stock of \$50,000, to own and operate the knitting mill reported last week as to be established by them at Spartanburg. Beside the 50 machines for knitting hosiery, there will be an equipment installed for dyeing purposes.

## TEXTILES.

[A complete record of new textile enterprises in the South will be found in the Construction Department.]

Correspondence relating to textile matters, especially to the cotton-mill interests of the South, and items of news about new mills or enlargements, special contracts for goods, market conditions, etc., are invited by the Manufacturers' Record. We shall be glad to have such matter at all times, and also to have any general discussion relating to cotton matters.

### The Griffin Enlargements.

Further details have been obtained regarding the additional 10,000-spindle mill for which the Griffin (Ga.) Manufacturing Co. is now contracting, as reported last week. Charles Wheeler, of Griffin, has been engaged as mill architect and engineer in charge of the construction work. In the two-story 75x336-foot building to be erected there will be installed, to be exact, 10,112 spindles and 306 looms, with preparatory machinery to match, for manufacturing colored goods from numbers six to 22 yarns. The mill will be operated by electricity obtained from the water-power developments of the Towliga Falls Power Co., located 15 miles from Griffin and owned by the stockholders of the Griffin company. One thousand horse-power will be obtained from the power company and 400 horse-power from steam plant now ready for use. Buildings for warehouses, dye houses, power house, operatives' cottages, etc., will also be erected. Probably from \$200,000 to \$250,000 will be expended.

### A \$350,000 Addition.

An additional mill, to cost \$350,000, will be built at Honeapath, S. C., by the Chiquola Manufacturing Co. This company will issue additional stock to cover the cost of the enlargement, and the necessary amount has been subscribed. A routine meeting of the stockholders has been called for April 12 to authorize the betterments. The new building will be a modern mill structure 130x150 feet in size, to contain 24,480 spindles and 600 looms, together with the necessary preparatory machinery for manufacturing fine sheetings. The mill engineer in charge of construction is J. E. Sirrine, of Greenville, S. C. The executive of the company will go north during the week to make contracts for the larger proportion of the machinery required. (The present Chiquola plant has 15,840 spindles and 400 looms, manufacturing fine sheetings.) James D. Hammet is president.

### Southern Blanket Mills.

Articles of incorporation have been filed by the Southern Blanket Mills, of Atlanta, Ga., the capital stock being \$50,000, with privilege of increasing to \$200,000. Messrs. George A. Speer, A. Koplin, W. A. Speer, George W. Parrott, A. W. Calhoun and J. R. Hopkins are the incorporators. Their charter gives the company permission to manufacture blankets from any and all kinds of fibrous materials, but no specific details as to the plant have been announced.

### Contemplate a 10,000-Spindle Mill.

The erection and equipment of a cotton mill of 10,000 spindles is contemplated by Messrs. J. C. Rankin, W. T. Lowe and J. W. Moore and Mrs. E. C. Wilson, all of Lowell, N. C. It is proposed that the plant begin operations when 5000 spindles are in position, water-power to be used for driving the machinery. Plans for the mill are now

under consideration and the expenditure of probably \$200,000 will be decided upon. The parties named own the Spencer Mountain Mills, a plant operating 5000 spindles, at Lowell.

### Wants Silk Mill Facilities.

A well-known manufacturer of silk goods in New Jersey writes the Manufacturers' Record that he contemplates establishing a branch mill in the South. He is looking for a location where he can obtain a building with 25,000 feet of floor space and will need from 250 to 300 horse-power for operating the machinery. It is necessary that the building be strong enough to accommodate heavy machinery turning at high speed. The enterprise will afford light and clean employment to young boys and girls, and in two years 125 persons would be required. Commercial organizations devoted to the promotion of industries can probably correspond to advantage with the manufacturer referred to. Letters addressed to "Silk Mills," care the Manufacturers' Record, will be forwarded.

### Additional Mill to Cost \$350,000.

In January the Manufacturers' Record mentioned that the Victor Manufacturing Co., of Greers, S. C., contemplated an extensive enlargement of its plant. The full details have now been decided upon and the company will increase its capital from \$350,000 to \$700,000 to pay for the additional mill. Contract for erecting the necessary building has been awarded to the Flynt Building and Construction Co., of Palmer, Mass., and the plans call for a three-story brick structure, to be annexed to the present building. The new machinery will include 25,000 spindles, 700 looms and the complement of preparatory apparatus for manufacturing wide print cloths. J. E. Sirrine, of Greenville, S. C., is the engineer in charge of the improvements. The present Victor equipment is 27,000 ring spindles and 700 looms.

### The Camperdown Mills.

Application has been filed for the incorporation of the Camperdown Mills of Greenville, S. C., with capital stock placed at \$100,000. The company takes over the Camperdown Mills heretofore operated by the Huguenot Mills. It is proposed to enlarge the plant to about double its present capacity and the improvement work has begun. There will be a total of about 10,000 spindles and 432 looms in position when the improvements are completed. Probably \$75,000 will be expended. Ginghams will be manufactured and a finishing department will prepare the goods for market. C. E. Graham will be elected president; Allen J. Graham, treasurer, and C. E. Robinson, of Georgia, superintendent. The incorporators named are Messrs. C. E., S. J. and Allen J. Graham.

### A Big Addition.

Extensive increases of equipment will be undertaken by the Franklin Mills of Greer, S. C. The company now operates 5,000 ring spindles on the production of coarse yarns and intends to increase to 12,000 spindles with complement of 300 looms. The additional spindles will therefore number 7000. Probably from \$120,000 to \$150,000 will be expended to effect the betterments. It will not be necessary to erect additional buildings, the original structures having been designed for the complement stated. J. M. Geer, president of the Easley Cotton Mills, Easley, S. C., has been elected president of the Franklin Mills, and will be in full charge of the plant.

## PHOSPHATES.

### Factories for Florida.

In a plea for fertilizer factories at Tampa, the Weekly Tribune of that place says:

"Along the eastern border of Hillsborough and the western border of Polk county lies a strip of land richer in pebble phosphate than any section of like area yet discovered in the known world. The section is from two to seven miles in width, east and west, and 25 miles long from north to south. Within this area is located the phosphate plants known locally by the names, beginning at the most northerly and going southward: Bone Valley, Land Pebble, Prairie Pebble, Kingsford, Palmetto, Electric, Bone Hill, Phosphoria, Green Pond and Tiger Bay. The phosphate is found at varying depths underlying this whole section of country. It is only a question if the thickness of the strata of phosphate will pay for the removal of the overburden."

"Here at the head of the Alafia river and of Long Branch and the various bays and round ponds that feed them are located. These numerous plants because the overburden is light, the strata of phosphate from five to 25 feet thick and plenty of water to separate the phosphate rock from the sand or clay matrix in which the phosphate is imbedded. The method in which this phosphate rock is mined and prepared for shipment is an interesting question to those who have never visited the mines. One of the most up-to-date mines is the Prairie Pebble, near Mulberry, owned by Col. Joseph Hull, of Savannah. Here a large plant is built on the side of the pit, with immense boilers and engines, and a complete electric plant with a number of large dynamos that furnish the motors with electricity used in the various motors for all the machinery used, both in the drying department and running the pumps, both at the plant and on the boats. Six-inch artesian wells have been driven to supply them with the necessary water. This water is forced through a large centrifugal pump into the pit and through a reduced brass nozzle is turned against the walls of the pit which washes down the whole mass into a centre pit deeper than the surrounding, and is taken up by a powerful centripetal pump and forced into a revolving screen washer where the sand and clay is thoroughly washed from the small phosphate rocks which remain in the screen until forced out by a revolving screw into the wetbit, whence it is conveyed by open cups arranged on an endless belt into the dry bin, through the dryers large revolving cylinders under a strong heat. The dry bin holds thousands of tons and the bottom of it is up level with the box cars that stand on the side tracks on each side of the bin, and when the rock is sufficiently cooled it is drawn off through shoots into the cars, and is ready to be shipped to distant fertilizer factories, where it is submitted to acids and made the base of all commercial fertilizers."

"A line of the Atlantic Coast Line Railway runs to all these plants and is the most paying branch of the whole line, as for months together they handle a hundred cars per day on this line, which, at 16 tons to the car at five per ton would mean that the road handles over two and a half million dollars' worth of phosphate per annum. Some of these plants have been running for nine or 10 years and the amount still available seems to be inexhaustible. Large quantities are shipped to Ger-

many. It is a great pity that Florida has not large fertilizer factories to utilize the output of these mines and send out the finished product instead of the raw material."

"Col. Hull has frequently spoken of putting up a fertilizer factory in connection with his plants but freight rates and other obstacles have intervened. However, at Tampa, these objections would be eliminated. As it is, these phosphate plants have turned loose thousands of dollars for labor and fuel, and the lands have been stripped for miles in that section to furnish wood for the various furnaces. Of late years there has been a consolidation of many of the plants. Combinations are being formed in this as well as in every other line of industry."

### Alabama Pyrites.

The completion of the Eastern Railroad of Alabama from Talladega to Pyriton gives easy access to Nashville for the product of pyrites mines recently opened at Pyriton which suggests another source of valuable raw material for the fertilizer factories at Nashville already enjoying the advantages of nearness to the Tennessee phosphate fields. On this point the Nashville American says: "If this new and cheaper source of pyrites supply is thus in the natural geographical order of things obtained by Nashville manufacturers, it will but constitute another means of enabling them within their legitimate territory to supply users with an article not to be equaled elsewhere in quality and at prices which cannot be shaded. Purchasers of this material in Nashville are already fully alive to the fact that the prices charged are reasonable; in fact, as low as can be consistently made; but if, in the bountifulness of rich minerals near Nashville, a new means of cheapening manufacture can be found, they can rely on their surely sharing in or receiving the full benefit of this decreased cost."

A number of manufacturers of implements and vehicles who have plants along the upper Mississippi river from St. Louis to Moline and Rock Island, are planning to establish a fleet of barges to carry to New Orleans their output intended for the Southern trade and for export. Connected with this is a project for the building at New Orleans of great warehouses, where the goods will be stored until time for their shipment to South America, South Africa and Europe.

S. Renaud, of 8 Rue Novelle, Paris, writes to the Manufacturers' Record that he would like to get into communication with American manufacturers of machines for cutting helicoidal ornamentation, together with the corresponding oblique indentations or tooth work. He adds that the helicoidal work should be at most 30 millimeters, and should be suitable for watches.

It is reported that Upham, Ralston & Johnson, of Parkersburg, W. Va., have purchased for \$90,000 a lease on 140 acres of oil lands in the Yellow Creek district of Calhoun county, W. Va., upon which are seven wells having an aggregate daily production of 80 barrels.

During February 13,186 tons of high-grade Florida phosphate rock were shipped through Savannah to foreign ports.

## MECHANICAL.

### A New Edger.

In the general equipment of a saw mill, certain machines have gradually become almost standard in their construction, and their manufacturers show little desire to depart from general lines. This is particularly true of edgers, trimmers and similar machines. Occasionally a manufacturer introduces some changes, but usually they are unimportant. This being the case, it is difficult for a manufacturer to produce a new machine, say an edger, which shall have enough points of superiority to recommend it to the user and still compete with the standard machines. William E. Hill & Co., of Kalamazoo, Michigan, believe that they have accomplished this, however, in the machine that illustrates this article, and claim that they have produced a first-class edger, which they can sell at a moderate price, and one which has many points of superiority.

The machines are very heavy, and are built in two widths—45 inches and 48 inches—with either three or four saws, as desired. The main frames of the

requiring examinations at frequent periods as a safeguard. And yet, during the past twenty years there has developed another factor in the power plant that is even more dangerous—namely, the fly-wheel break—and records show an appalling loss of life and property from this source. The increase of heavy strains in the exacting duty of street railway, lighting and power work is in a measure responsible for this, but in the main the trouble can be traced to a great extent to the same cause as that which produces the boiler explosion—overload. Few engines to-day are running at their rated capacity. With a mistaken idea of economy the engine is seldom large enough when purchased, and then when business increases, new machines are attached until it becomes necessary to increase the speed or steam pressure to enable the engine to pull the overload.

In these times of close competition, builders put into their machinery only just the amount of metal required for an engine of given capacity, and sometimes not that. When you increase the work done by an engine one horse-power over its rated capacity you are taking long chances. So long as everything

lars, have to be paid annually, and people feel satisfied that they are paying for protection. But if no fire or explosion occurs they are paying large amounts of money every year for which there is no material return; and if the possible catastrophes do happen, the insurance is paid but the tangible property is gone.

With "engine-stop" insurance there is only one premium to pay—the first cost of the apparatus—and if the engine races, the engine stop prevents an accident and no property is destroyed.

The Monarch Engine Stop and Speed Limit system, made by the Consolidated Engine Stop Co. of New York, supplements the governor; and when that fails, from any cause, the Monarch Speed Limit automatically shuts down the engine. It has been installed by such representative consulting engineers, lighting and railway companies as Westinghouse, Church, Kerr Co.; Stone & Webster; United Gas Improvement Co.; Sunderland & Porter; Boston Elevated R. R. Co.; Massachusetts Electric Cos.; Connecticut Railway and Lighting Co.; Cleveland Electric Railway Co.; Terra Haute Street Railway Co.; Denver Tramway Co.; Jacksonville Street Railway Co.; Houghton County Street Rail-

of which have factories on North Main street.

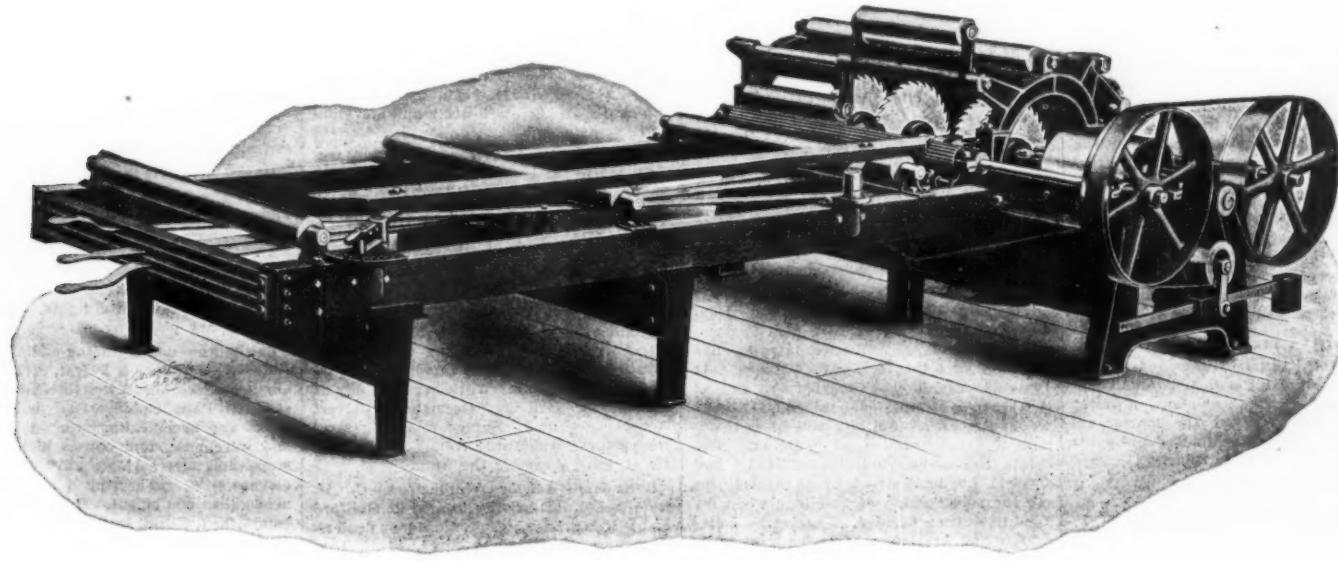
A. Leschen & Sons sought to restrain Broderick & Bascom from using a trademark for their ropes which it was charged was an infringement on that adopted by themselves.

The complainant's description of its trade-mark was: "The trade-mark consists of a red or other distinctively colored streak applied to or woven in a wire rope. The color of the streak may be varied at will, so long as it is distinctive from the color of the body of the rope."

In his decision Judge Adams holds that this streak of color applied to or woven in the rope does not constitute a legal trade-mark. The court said in part:

"I cannot escape the conviction at the outset that the mark claimed by the complainant is obnoxious to the first principles of the law governing the acquisition of a valid trade-mark. At common law the mark must be some symbol or device not descriptive of the character, quality or composition of an article, or the place where it is manufactured, but such a thing as indicates origin or ownership of the goods.

"One might as well say that a manufacturer of chairs can adopt the diagram



A NEW EDGER.

machine are so designed that the great weight is distributed so as to give the greatest strength. The cross girts and pressure-roll frames are so strong that it is almost impossible to break them. The arbor is of heavy forged steel, three and one-quarter inches in diameter, and has balanced driving pulley. The saws are shifted by hand levers of peculiar design which move very easily and which can be set to cut any width. The board guide is positive in its action and can always be depended on. There is one four-inch feed roller in front of saw and two behind. These are milled from solid bar, not cast. This will give you an idea of the careful attention to detail which is so noticeable in studying the construction of this machine.

The front pressure rolls are four inches in diameter, the rear pressure rolls are eight inches. The widest board that can be edged on a 45-inch four-saw machine is 28 inches; on 48-inch, 31 inches; 18-inch and 20-inch saws are used. Write Messrs. Hill & Co. for further details.

### Power Plant Accidents.

Within the past thirty years the number of boiler explosions increased to such an extent that many States have passed laws restricting the pressure carried and

runs smoothly, the engine may hold together, but let for an instant the load suddenly decrease, and the overloaded governor finds it impossible to take care of the wide load variation, and what happens? The engine speeds up a few revolutions more than customary and far above its normal speed. Each revolution means an extra strain on the already strained drive-wheel until its safety limit is exceeded, and then, crash!—huge pieces of iron are thrown in all directions.

There is precaution against such, and it is becoming more generally recognized by power-plant managers. It is the automatic engine stop, a mechanical device operated by electricity. This device will not allow an engine to make a single revolution beyond the predetermined, so that a fly-wheel can never reach the danger point. Some managers argue that the initial outlay for engine-stop equipment is expensive and doesn't bring any direct return, but they fail to look ahead and realize that if they once have a runaway engine it will do more damage, many times over, in three minutes, than it will cost to equip every engine in the plant; furthermore, the initial outlay is final, and no more expense attends the equipment.

For fire and boiler insurance the premiums, amounting to thousands of dol-

lar Co., Hancock, Mich.; Rockingham County Light and Power Co., Portsmouth, N. H.; City & Suburban Railway Co., Portland, Ore.; Rhode Island Suburban Railway Co.; Tacoma Railway and Power Co., Tacoma, Wash.; Charleston Consolidated Railway, Gas and Electric Co., Charleston, S. C. Also, the representative manufacturing establishments, as United States Steel Corporation; American Brass Co.; International Silver Co.; United States Leather Co.; B. F. Goodrich Co.; Niles Tool Works; Proctor & Gamble Co.; Whitman & Barnes Manufacturing Co.; B. B. & R. Knight; J. L. Mott Iron Works; United States Rubber Co.; Brown & Sharpe Manufacturing Co., and Midvale Steel Co.

### MUST INDICATE ORIGIN.

#### Important Judicial Decision Regarding Trade Marks.

Judge Adams, of the United States District Court, in sustaining the demurrer to the bill seeking to enjoin the defendant from infringing a registered trade-mark, rendered a decision which probably will result in the change of many trade-marks now in use.

The opinion was rendered in the case of A. Leschen & Sons Rope Co. against the Broderick & Bascom Rope Co., both

of a chair, or that a watchmaker can adopt the diagram of a watch, or a stove-maker the diagram of a stove, unaccompanied by any surrounding form, figure, symbol or display, as his trade-mark."

Referring to that portion of the complainant's description of the trade-mark in which it says "the color of the streak may be varied at will as long as it is distinctive from the color of the body of the rope," the court says:

"This permissible shifting of the most striking feature of the mark from time to time is in itself fatal to its validity. The fundamental purpose of the trade-mark is to indicate on sight the ownership or origin of the goods to which it is applied. It must therefore be permanent—the same to-day, to-morrow and at all times—otherwise its legitimate purposes cannot be subserved and the public may readily be deceived."

Quoting from Brown on trade-marks, the court says:

"We can describe and recognize a Maltese cross, a diamond within a circle, a five-pointed star, a flag of fixed proportions, having a certain number of stripes and stars or national emblems. Then color may well be a valid essential constituent; but it is hardly within the range of possibility to convey an adequate idea of a thing which has no fixed invariable limits."—St. Louis Republic.

# CONSTRUCTION DEPARTMENT.

## TO OUR READERS!

In order to understand and follow up properly the Construction Department items, please bear in mind the following statements:

### EXPLANATORY.

The Manufacturers' Record seeks to verify every item reported in its Construction Department by a full investigation and complete correspondence with everyone interested. But it is often impossible to do this before the item must be printed, or else lose its value as news. In such cases the statements are always made as "rumored" or "reported," and not as positive items of news. If our readers will note these points they will see the necessity of the discrimination, and they will avoid accepting as a certainty matters that we explicitly state are "reports" or "rumors" only. We are always glad to have our attention called to any errors that may occur.

\*Means machinery, proposals or supplies are wanted, particulars of which will be found under head of "Machinery, Proposals and Supplies Wanted."

In correspondence relating to matters reported in this paper, it will be of advantage to all concerned if it is stated that the information was gained from the Manufacturers' Record.

### ADDRESS FULLY.

To insure prompt delivery of communications about items reported in these columns, the name of one or more incorporators of a newly incorporated enterprise should be shown on the letter addressed to that town, or to the town of the individual sought, as may be shown in the item, as sometimes a communication merely addressed in the corporate or official name of a newly established company or enterprise cannot be delivered by the postmaster. This will help to insure prompt delivery of your communication, although it is inevitable that some failures on the part of the postal authorities to deliver mail to new concerns will occur.

### WRITE DIRECTLY.

It is suggested to advertisers and readers that in communicating with individuals and firms reported in these columns, a letter written specifically about the matter reported is likely to receive quicker and surer attention than a mere circular.

## BALTIMORE BUILDING NOTES.

Baltimore—Office Building and Restaurant.—The George Gunther, Jr., Brewing Co., Third, corner Toone street, Canton, will build modern restaurant and office building on site of The Lafayette, Fayette street near St. Paul street. The building will be four stories high, to have six offices on each of the three upper floors, each to be each office room, etc. Materials: steel, concrete, brick, stone, terra-cotta, marble, wood to be used only where absolutely necessary; restaurant doors to be of decorative iron-work over wood. To first story the front will be of limestone; three upper stories of buff brick with terra-cotta trimmings; restaurant interior to be of marble, ornamented plastering, and hardwood. Ventilating, steam-heating plant, electric-lighting fixtures, electric wiring, etc. In the basement will be installed the heating and elevator equipment and kitchen. Estimated cost, \$50,000. Contract for erection not awarded, but it is reported local builder will be favored. Otto G. Simonson, architect, offices in court room, Post Office Building, Calvert and Fayette streets, is preparing the plans and specifications.

Baltimore—Store Building.—Frank Albert, First National Bank offices, Saratoga street near Cathedral street, intends to erect a three-story, 22 x 66 foot, store building at 421 E. Baltimore street, on site formerly occupied by F. C. Fossett & Son, haberdashers, now at 105 N. Gay street. Mr. Albert has not chosen his architect nor decided on any details. He is desirous of arranging with other owners of buildings in the block to plan the new structures so that all the designs may be harmonious, and possibly have one architect and contractor for all the work.

Baltimore—Office Building.—William H. Porter & Son, 507 E. Forrest street, have received contract to erect office building for N. Rufus Gill. This structure was announced last week as to be four stories

high, 28 x 32 feet, costing \$6000, after plans and specifications by J. E. LaFerty, architect, 41 Builders' Exchange.

Baltimore—Warehouses, Store Buildings, etc.—A. B. McCreery, of California, will probably rebuild a number of warehouses and store buildings destroyed by the recent fire. Messrs. John E. Hurst, dry goods; R. M. Sutton & Co., dry goods, and other leading firms occupied the buildings. Plans and specifications for the buildings will be undertaken as soon as city is prepared to define the building lines. Messrs. Baldwin & Frick, real estate agents, Charles and Saratoga streets, are the Baltimore representatives of Mr. McCreery.

Baltimore—Bank Building.—The First National Bank is having plans prepared for the construction of its proposed banking building on the old site at 17 South street, the structure to be for the exclusive use of the bank. No final details as to equipment, except in a general way to be of the most modern type, have been determined. Temporary offices at 16 W. Saratoga street; James D. Ferguson, president.

Baltimore—Library Building.—The Legislature is being petitioned to appropriate \$50,000 for the erection of a fireproof building for the custody of the library of the Medical and Chirurgical Faculty. Drs. Harry T. Friedewald, 1029 Madison avenue; David Street, 712 Park avenue, and others are interested. The faculty offices are at 847 N. Eutaw street.

Baltimore—Warehouse.—The Johns Hopkins Hospital Trust Estate, Mr. Thomas, manager, 211 N. Charles street, will build a seven-story warehouse with conveniences for wholesale dry goods business at 29 to 34 Hopkins Place and 25 to 31 S. Liberty street. No details have been decided nor has architect been named. The site is the former location of the Daniel Miller Co., and the new building will be occupied by that company; temporary offices at 100-13 Hanover street.

Baltimore—Warehouses.—The Johns Hopkins Hospital Trust Estate, Mr. Thomas, manager, 211 N. Charles street, has awarded contract to J. W. Walker, 1514 Riverside avenue, for clearing the site at southeast corner of Lombard and Hollingsworth streets, so that site will be in readiness for construction of building. The estate is also clearing site at 502-4-6 and 606-8 E. Lombard street, to be in readiness for the construction of buildings when details have been decided. Charles H. Jones is foreman in charge of latter work. No final details have been decided upon for any of the Hopkins buildings.

Baltimore—Storehouse.—Ferd. A. H. Stoetzer, 134 N. Broadway, contemplates building a three-story brick storehouse at 714 E. Lombard street, the site formerly occupied by him as a restaurant.

Baltimore—Warehouses.—Mercantile Trust & Deposit Co., Calvert and German streets, will build from fifteen to twenty warehouses for various estates which it represents. The locations are at 426 E. Pratt street, 8 W. Baltimore street, 3 Centre Market space, 26 S. Charles street, 119-21 Mercer street, 33 and 35 S. Sharp street, 2, 23, 25 and 27 S. Sharp street, 105 and 113 W. German street.

Baltimore—Warehouses.—It is reported that Frank Brown, 820 N. Charles street, has awarded contract to B. F. Bennett, 123 S. Howard street, for construction of three warehouses in the fire district. Each structure to be four stories high, 50 x 100 feet, of brick and stone, slow-burning construction, with large skylights, etc., and cost \$50,000 each. Location, on Patterson's wharf.

Baltimore—Store Buildings.—John Hiltz, building contractor, No. 3 Clay street, is clearing site at 110 and 112 E. Baltimore street for owners, who intend rebuilding store structures formerly occupied by N. Hess' Sons and Columbia Phonograph Co.

Baltimore—Warehouse.—Lemuel Appold, of the Colonial Trust Co., Saratoga street near Charles, will build warehouse at 120-122 S. Howard street. The structure will be three stories high, 62 x 182 feet, of brick and iron, with tin roof; non-fireproof. Ground floor will be used by Galters Express Co., with branch track from the United Railways. Equipment for loading and unloading cars will doubtless be installed. B. F. Bennett, 124 S. Charles street, has the contract for construction.

Baltimore—Hotel.—Frank Junker intends to rebuild the Hotel Junker, at 20 and 22 E. Fayette street, in the burned district. He is now clearing the site and having plans and specifications prepared by John Cassell, of Charles E. Cassell & Son, architects, southwest corner Charles and Saratoga streets. Fireproof construction will be adopted. No other details can be stated at present.

Baltimore—Hotel.—Boston (Mass.) capitalists contemplate building a modern fireproof hotel in the burned district and have been investigating the section with a view of choosing site. Their names are not ready for announcement, but Horace Slingluff, real estate agent, 406 St. Paul street, is said to represent them.

Baltimore—Warehouse.—Further details have been obtained regarding warehouse to be erected for Neudecker Tobacco Co., 20 S. Howard street, by Charles Stockhausen, 414 E. Fayette street. Structure to be three stories high, 25 x 70 feet, of brick and steel, with terra-cotta trimmings and tin roof; non-fireproof. Sanitary plumbing will be installed. Cost, \$8000.

Baltimore—Warehouses.—The Johns Hopkins Hospital Trust Estate states that it had sixty-four warehouses destroyed in the fire. Office located at 211 N. Charles street.

Baltimore—Warehouse.—J. A. Wilson has awarded contract to John Hiltz, 3 Clay street, to erect five-story building, 39 x 60 feet, to be located at Gay and Water streets, in the burned district. Structure to be of brick, with iron columns and beams and slag roof. Steam heating and elevators will be installed.

Baltimore—Maryland Institute.—The Maryland Institute, art school, etc., has petitioned the Legislature for \$250,000, to be expended on the purchase of site and reconstruction of its building at Baltimore and Harrison streets, in the burned district. John M. Carter, 222 St. Paul street, is chairman of board of directors.

Baltimore—Preparing to Rebuild.—The building sites of William H. Keyser, 14 E. Mt. Vernon Place, are being cleared, preparatory to rebuilding as rapidly as the insurance is adjusted. Work began to-day at the Keyser Building, German & Calvert streets. Arthur L. Shreve & Co., general contractors, Guildford avenue and Eager street, have charge of the work.

Baltimore—Liquor Warehouses.—C. H. Ross & Co., temporarily located at Guilford and Oliver streets, wholesale liquor dealers, have engaged Owens & Sisco, 14 E. Lexington street, as architects to prepare plans for two warehouses, to be located in the burned district. The architects state that the details concerning these structures have not been decided upon and will not be until the city decides as to widening the streets.

Baltimore—Department Store.—J. W. Putts & Co., 224 Park avenue, have engaged F. E. & H. R. Davis, 220 St. Paul street, to prepare plans for their new department store, to be located on the old site, Charles and Fayette streets. The architects state that the details of this structure have not been decided and will not be until the city decides as to widening the street.

Baltimore—Commission House.—It is reported that John Holmes will erect fish commission house, 24x70 feet, two stories high, of iron and granite, with stone foundation, to cost \$4000, at 702 Water street. He will erect at 31 and 33 Centre Market Space a produce commission house, two stories high, of iron and granite, with stone foundation, 35x60 feet, to cost \$5000.

Baltimore—Commission House.—John W. Chew, 1423 Linden avenue, has let contract to Louis Millske, 1220 Ashland avenue, for erection of building to be used as a fish commission house. The structure will be located at 707 Water street, and be two stories high, 22x100 feet, with cement foundation, first floor of cement, roof of tin, and cost \$9000.

Baltimore—Storage House.—Messrs. Liebman & Dellevie, leaf tobacco merchants, 1317 W. Fayette street, will erect an addition for storage purposes at 806 E. Fayette street. The structure will be 22½x100 feet, two stories high, of brick, with flat roof, and cost \$3000.

Baltimore—Bank Building.—The Farmers' & Merchants' National Bank, 301 N. Charles street, has engaged Messrs. Baldwin & Pennington, architects, 311 N.

Charles street, to prepare plans and specifications for its proposed bank building to be located at South and Lombard streets, in the burned district. The structure is to be of brick and steel; fireproof construction.

Baltimore—Hospital.—St. Joseph's Hospital, Caroline and Hoffman streets, will build a brick and stone addition, four stories high, plans and specifications being in course of preparation by Messrs. Baldwin & Pennington, architects, 311 N. Charles street.

Baltimore—Bank Building.—Hopkins Place Savings Bank has decided that its new banking structure at 7 Hopkins Place will be one story high, of stone and steel, with fireproof construction. R. M. Rother, 307 W. Fayette street, is president.

Baltimore—Hotel.—J. H. Benjes has engaged Charles M. Anderson, 333 N. Charles street, as architect to prepare plans for hotel to be located at 610, 612 and 614 E. Pratt street. Structure to be of brick, four stories high, 60 x 65 feet, iron beams and the roof, and will be equipped with sanitary plumbing and steam heat, and probably electric lights.

Baltimore—Warehouse.—A. L. Webb & Sons, 424 Light street, have engaged Charles M. Anderson, 333 N. Charles street, to prepare plans for warehouse to be located in the burned district. Structure to be of brick with terra-cotta trimmings, four or five stories high, 45 x 116 feet, with slag roof and concrete on first floor, and will be equipped with sanitary plumbing, electric lights, steam heat and two power elevators. J. Henry Miller, 110-112 Dover street, has the contract for erection.

Maryland—Cottage.—Oliver P. Hagerty, 317 Roland avenue, Roland Park, has commissioned Charles M. Anderson, architect, 333 N. Charles street, to prepare plans for a twenty-room cottage to be located at Port Deposit, Maryland. Structure to be of frame with stone foundation and to be equipped with electric lights, steam heat and sanitary plumbing.

Baltimore—Office Building and Warehouse.—Messrs. Ballinger & Perrot, architects and engineers, corner Twelfth and Chestnut streets, Philadelphia, Pa., will prepare plans and specifications for office building and warehouse, four stories high, of brick, stone and steel, 115 x 275 feet, to have elevators, steam-heating plant and other mechanical equipment. The architects have established a Baltimore office at 104 E. Lexington street, in charge of H. A. Rogers.

Baltimore—Warehouse.—George Barry will build warehouse in the burned district, the structure to be five stories high, of brick, stone and steel, with elevator and steam-heating plant. Messrs. Marsh & Peters, 520 Thirteenth street, Washington, D. C., are the architects preparing the plans and specifications.

Baltimore—Store Building.—Louis Crook has applied for permit to erect store and dwelling house at 60 Centre Market Space, in the burned district, the structure to be of brick, 16x60 feet, three stories high. A. B. Moyan is stated to be the contractor.

Baltimore—Office and Stable.—H. D. Dreyer & Co., box manufacturers, temporarily located at Eastern and East Falls avenues, have awarded contract to Henry Pierson, 1009 Hanover street, to erect office and stable at southwest corner Lombard and Concord streets. Structure to be three stories high, 24x80 feet, of brick, with slag roof, and to be equipped with steam heat.

Baltimore—Warehouse.—The Carey estate has engaged Ellcott & Emmart, architects, 323 North Charles street, to prepare plans and specifications for repairing and reconstructing the warehouse building at the southeast corner of Sharp and Lombard streets, in the burned district.

Baltimore—School House.—The City Building Inspector, office in the City Hall, is preparing plans and specifications for the proposed school building to be located at Ramsay and Pulaski streets. The structure will be two stories high, 24 rooms, of brick with stone facings, 70x145 feet, and \$60,000 is the appropriation. Plans will be ready by March 25 for builders to estimate on.

Baltimore—Warehouse.—Further details have been obtained regarding the James Robertson Mfg. Co. (temporary office at 441 North street) warehouse, to be erected at the northeast corner of Howard and Henrietta streets, in the burned dis-

trict. The structure will be three stories high, 43x85 feet, of brick on a concrete foundation, with flat tin roof, etc., and cost about \$9000. John Waters, Centre street near St. Paul, has the contract for construction.

Baltimore—Store Building.—T. S. Stratton & Son, haberdashers and shirt manufacturers, 223 Liberty street, have engaged Messrs. Ellicott & Emmart, architects, 323 North Charles street, to prepare plans and specifications for alterations and improvements to dwelling, changing it to a store building.

Berkley Springs, W. Va.—Hotel.—Berkley Springs Hotel will remodel the ladies' and gentlemen's private and public baths. New concrete floors will be installed and the bathing pools will be relined. Cost of improvements will be about \$10,000. Bids for this work have already been submitted.

Baltimore—Hall.—St. Bridget's School, Rev. L. G. McNamara, Hudson and Robinson streets, will erect a one-story and basement hall, 130x54 feet. Structure to be of brick, with tin or slate roof, concrete floors, iron columns and beams, and equipped with steam heat. Bids on this work have already been received.

Baltimore—Store Building.—Mrs. J. Charles Linthicum, 705 St. Paul street, will erect a brick store building, to cost \$8000, at 427 East Baltimore street, for the use of Messrs. Bentley & Mervin, haberdashers, temporarily at Baltimore and Eutaw streets. Herbert G. Crisp, architect, 2700 St. Paul street, will furnish the plans and specifications. L. F. Fowler, 1310 Kuper place, has the contract for erection. Mrs. Linthicum will erect several other buildings in the burned district.

Baltimore—Warehouses.—The Safe Deposit & Trust Co., 13 South street, as trustee for the Bennett estate, will build three warehouses at the northeast corner of Sharp and Lombard streets, two to have a frontage of 24 feet, one a frontage of 34 feet, and each a depth of 119 feet; each to be four stories high, with brick terra-cotta fronts. Same company, for same estate, will erect at 30, 32 and 34 S. Charles street, three warehouses, with brick and terra-cotta fronts, four stories high, and walls of sufficient strength to permit of adding two stories in the future. Messrs. Charles E. Cassell & Son, architects, offices in the Robinson Building, Charles and Saratoga streets.

Baltimore—Warehouse.—Messrs. Fleischman & Co., distillers and manufacturers of yeast, will build warehouse at 211 Smith street wharf, having purchased site for \$5000. They intend to erect a six or seven-story structure for storage purposes, the cost to be from \$40,000 to \$50,000. Their temporary offices are at North avenue and Gay street.

Baltimore—Office Building.—The American Bonding Co., James Bond, president, temporary offices at Saratoga and St. Paul streets, will erect a modern office building for its permanent home, but no details have been arranged, nor is it likely that any negotiations will be begun for some months.

Baltimore—Hotel.—Frank Junker has accepted plans and specifications of John Cassell, Charles and Saratoga streets, for hotel, to be erected at 20 and 22 E. Fayette street, replacing burned structure. Structure to be seven stories high, 40x85 feet, to be terra-cotta to the second floor and brick with terra-cotta trimmings to the seventh, with galvanized iron cornices and tile roof. Iron, steel and fireproofing material will be used throughout the building. Electric wiring and fixtures, sanitary plumbing, steam heating system and one hydraulic elevator will be installed. Messrs. Tatterson & Thuman, contractors, Pratt and Greene streets, will superintend the construction.

Baltimore—Store Building.—T. S. Stratton & Son, haberdashers, 223 N. Liberty street, have engaged Ellicott & Emmart, architects, 323 N. Charles street, to prepare plans and specifications for remodeling their building. First floor will be lowered to the ground and a store front will be installed, and the building will be equipped with electric wiring and fixtures.

Baltimore—Wholesale Liquors.—James P. Byrnes, 213 N. Liberty street, Hugh P. Byrnes, James P. Jones and others have incorporated the J. P. Byrnes Co., with capital of \$3000, for wholesaling liquors.

Baltimore—Warehouse.—C. Graf and John H. Kelly, 1509 Ashland avenue, have received contracts to build several modern warehouses on Centre Market Space and Water street.

Baltimore—Hotel.—James L. Kernan offices in Maryland Theatre, Franklin

street near Howard) will proceed with the construction of the Maryland Hotel, work on which has been suspended for some months. The foundations, brick laid in cement, have been completed. The building will be six stories high (44 feet high), 84x92 feet, with front of stone, brick and terra-cotta, roof of slag; all partitions to be fire-proof; framework will be of steel; floors to be of cement over concrete; three massive Ionic columns to be set on each side of entrance; cornices to be of terra-cotta; ornamental balustrades will support electric-lighting globes. Building will have 130 bedrooms, besides offices, restaurant, dining-rooms, toilet rooms, etc. Cost estimated at upward of \$100,000. Messrs. John D. Allen & Co., architects, Philadelphia, Pa., furnished the plans and specifications. Messrs. D. W. and G. H. Thomas, contractors, 419 North Charles street, have the contract for construction.

Baltimore—Office Building.—United States Fidelity & Guaranty Co. has engaged Messrs. Parker & Thomas, architects, 612 North Calvert street, to prepare plans and specifications for an eight or 10-story office building, to be located on the old site at Calvert and German streets, in the burned district. The building will be 32x90 feet in size and possibly larger if adjacent lots can be secured at reasonable prices. It will be thoroughly modern and fireproof throughout, intended for the exclusive use of the company. Temporary offices at Saratoga and Cathedral streets. John R. Bland, president.

Baltimore—Warehouse.—Joseph Perlman, 112 West Pratt street, has engaged Louis Levi, 41 Central Savings Bank Building, Lexington and Charles streets, as architect to prepare plans and specifications for warehouse to be located at 21 South Calvert street. Structure to be of brick, four stories high, 21.5x82 feet, with concrete cellar, tin roof and possibly store front. Sanitary plumbing, steam-heating system, and one hand elevator will be installed.

Baltimore—Restaurant and Office Building.—Richard P. Goodwin, Liberty and Clay streets, has awarded contract to the H. S. Sinclair Contracting Co., Builders' Exchange Building, Charles and Lexington streets, to clear site of 14 South Calvert street preparatory to erecting a restaurant and office building, plans and specifications for which are now being prepared.

Baltimore—Office Building.—The Crown Cork & Seal Co., 1511 to 1523 Guilford avenue, has awarded contract to George Bungecke & Sons, 305 St. Paul street, for erection of office building. Structure to be of brick with brownstone trimmings, two stories high, 10x50 feet. Slag roofing; leaded glass skylights and fireproofing material will be used. Interior will have hard wood finish and marble tiling, and be equipped with electric wiring and fixtures; sanitary plumbing and steam-heating system. Jackson C. Gott, 218 North Charles street, prepared the plans and specifications.

Baltimore—Office and Warehouse.—S. B. Sexton Stove & Mfg. Co., 527 West Conway street, has engaged Joseph E. Sperry, 39 Builders' Exchange, as architect to prepare plans for office building and warehouse, to be located at 5, 7 and 9 South Gay street. Structure to be of brick, five stories high, 66.6x96 feet; second and third floors to be equipped for offices. Further details will be announced later. Mr. Sexton will erect the building, engaging a superintendent.

Baltimore—Warehouse.—Thomas H. Gaither, 224 St. Paul street, has engaged Jackson C. Gott, 218 North Charles street, as architect to prepare plans for warehouse to be located on Hanover street near Baltimore street. Structure to be six stories high, 23x70 feet, of buff brick with limestone and terra-cotta trimmings; concrete cellar; iron construction; non-fireproof; tin or slag roof; will be equipped with electric wiring and fixtures; sanitary plumbing and steam-heating system. Drawings are now in the hands of the contractors for bids.

Baltimore—Office Building.—Henry Mears & Son, funeral directors, 414 East Fayette street, have awarded contract to C. Sheehan & Son, builders, Center and Calvert streets, for the erection of office building on old site, Fayette near Holliday street. Structure to be of brick, two stories high, 18x80 feet, with galvanized iron cornices and tin roof. Electric wiring and fixtures; sanitary plumbing and hot-water heating system will be installed.

#### MANUFACTURING.

Baltimore—Paper-box Factory.—Messrs. J. E. Smith & Co., temporary address 4, 6, 8 and 10 N. Caroline street, will re-establish

their paper-box factory. They have let contract to Henry S. Rippel, 7 Clay street, for remodeling building on Central avenue near Baltimore street for their purposes. New basement flooring will be laid, new columns and girders will be used, etc. Smith & Co. ordered a new equipment of machinery for their plant the day after the fire of February 7, and it is now ready for installation.

Baltimore—Dessert Manufacturing.—The Fruit Pudding Co., manufacturers of dessert preparations, temporary location at northwest corner of Charles and Pratt streets, will build modern warehouse and manufactory on site at 13 to 19 Balderston street, in the fire district. The new structure will be four stories high, 80x120 feet, of brick, with tin roofing, electric wiring, electric fixtures, steam-heating plant, two steam elevators, etc. Contract has not been awarded.

Baltimore—Belting Factory.—Baltimore Belting Co. has established a manufactory for leather belting at 229 N. Holliday street, and has no plans at present as to rebuilding on the former site in the burned district.

Baltimore—Bee-hive Manufacturing Plant. Further details regarding the Riddlemeier Building have been obtained. The structure will be 75x135 feet, six stories high with basement, ground floor to be finished with seven-story fronts, and the upper floors to be equipped for light manufacturing; room and power to be furnished by rental to manufacturers. Structure will be of brick with stone trimmings, concrete in basement, steel beams, steel ceilings, slag roofing, electric wiring and fixtures, modern sanitary plumbing, steam heating, boilers, engines, dynamos, pulleys, shafting, elevators, etc.; non-fireproof construction. Joseph E. Sperry, 39 Builders Exchange, furnished the plans and specifications. Messrs. Willis & Mason, 203½ St. Paul street, are the contractors. Reported that cost will be from \$75,000 to \$100,000.

Baltimore—Electrotyper and Engraver.—A. W. Harrison, 122 Alisquith street, electrotyper and engraver, will build a three-story structure, of brick, 52x130'3", and install machinery for general manufacturing. About \$15,000 will be invested and the plant will be located on the old site in the burned district, 15 and 17 South Frederick street. It was stated last week that plans and specifications were being prepared for this building. Mr. Harrison wants prices on a 100 horse-power boiler, 50 horse-power engine, and a power elevator. (The Wade & Bell Co., address not stated, is the engineer in charge of this plant.)\*

Baltimore—Printing, Lithographing, Etc.—R. Bennet Price, 28 South Calvert street; Frank W. Dryden, 2122 Maryland avenue; William Irvine Cross, 610 Cathedral street, and others, have incorporated the Price Co. for conducting a printing, lithographing, engraving and stationery business. Capital stock is placed at \$10,000.

Baltimore—Brick and Terra-cotta Works.—Peter Potee, of Brooklyn, Md.; Addison E. Mulliken, Roland R. Merchant, William F. Applegarth and Guy W. Resps, each of Baltimore, have incorporated the Potee Brick Co. for the manufacture of bricks, terra cotta and other products of clay. Their capital stock is placed at \$12,000.

Baltimore—Perfumery Factory.—The William H. Brown & Bros. Co. has been incorporated, with capital stock of \$15,000, for manufacturing perfume and other toilet articles. The incorporators are Frederick Ohrenschall, 409 Forest road; Adolf C. Meyer, 34-36 Sutton street; Clinton L. Crawford, 722 Wyndhurst avenue, and others.

Baltimore—Coal Dealers.—William W. Johnson, 15 North Broadway; Roland R. Merchant and others have incorporated the S. M. Johnson & Son Coal Co., with capital stock of \$15,000, for dealing in coal, succeeding the firm of S. M. Johnson & Son.

Baltimore—Manufacturing and Storage.—John Y. McNamee will erect building at 320 and 331 Ringgold street for manufacturing and storage purposes. The building will be of brick, 25x65 feet, two stories high, foundation of arch brick and cement, floors of asphalt block, etc., costing \$8000. Contract for construction has been awarded to Farley & Monmonier, 1714 Orleans street.

Baltimore—Stove Manufacturing.—S. B. Sexton, Jr., 521 W. Conway street, has awarded contract to J. J. Walsh & Son, 1525 Maryland avenue, for erecting two rear buildings and raising a story in building used for light manufacturing at 424-426 W. Conway street. The two structures will be built of brick, 14x13 feet, heated by hot-water equipment, and cost \$3500. Walsh & Son also have contract to erect brick factory building, 17x61 feet, one story high,

at 504 Wayne street, for the S. B. Sexton Stove & Manufacturing Co., 521 W. Conway street. Cost to be \$2500.

Baltimore—Baking Powder Factory.—The Johns Hopkins Hospital Trust Estate, 211 N. Charles street, has engaged George Archer, 47 and 48 Central Savings Bank Building, 2 E. Lexington street, to prepare plans for factory building to be occupied by Sea Gull Specialty Co., now at 230 N. Gay street, to be located at S. W. cor. Frederick and Lombard streets. Structure to be six stories high, 85x100 feet, built of brick, with concrete foundation and slag roof. Steam heating will be installed. Machinery for manufacturing baking powder will be installed, but this the company states has already been purchased. Cost of building about \$46,000.

Baltimore—Harness Factory.—Further details have been obtained regarding building of John Sendelbach & Son, now at 420 E. Saratoga street, to be erected at 621 and 623 E. Lombard street. Structure to be three stories high, 25x90 feet, of brick with stone trimmings, concrete on first floor, tin roof and iron beams. Sanitary plumbing will be installed. Building to have store front. No machinery will be installed, all hand-work being the output. Estimated cost, \$6300.

Baltimore—Electric-light and Power Plant.—The Maryland Telephone & Telegraph Co. has obtained permission to install and maintain electric cables in the municipal conduits. It has been perfecting plans for a year with a view of supplying electricity for lights and power, and contemplates expending over \$1,000,000 on the construction and equipment of a modern plant. As a nucleus for the plant the company has purchased the plant of the J. Hurst Furnell Co., at Sharp and Lombard streets. George R. Webb, president of the company, states that arrangements for the new plant are likely to be completed during the next several months. Offices at Lexington and Courtland street.

Baltimore—Brass Finishing Plant.—Edo Richardson, operating a brass-finishing plant at 316 North Holliday street, has purchased site for construction of modern building for his establishment. New structure will be three stories high, with basement, 20x81.6 feet, of brick, with iron beams and concrete floor. Mr. Richardson will install an equipment of machinery for brass finishing, probably buying considerable new apparatus. He invites manufacturers to send him illustrated catalogues and price lists of all kinds of brass-finishing machinery.\*

Baltimore—Manufacturing Picture Frames.—Further details have been announced regarding the store building of David Bendann, temporary location 513 North Charles street, to be located on old site in the burned district. The structure will be five stories high, 18x70 feet, of fire-proof construction, with artistic front of bronze and plate glass, walls of concrete, basement to be finished in white tiles and be used for heating plant and storage; first and second floors to be used as art galleries, and the other floors to be equipped with machinery for manufacturing picture frames. The roof will probably be one entire skylight of wire glass. Plans are now being prepared.

Baltimore—Brick Works.—The Baltimore Brick Co. will make extensive enlargements and improvements to its plant, in order to be prepared for the local demand for brick. About \$100,000 will be expended for the betterments, and the company states that the annual capacity of 150,000,000 bricks will be increased about 65 per cent. Contracts have been awarded for considerable new machinery, including three dryers with a daily capacity of 75,000 bricks. Offices at 14 West Clay street.

Baltimore—Edge Tool Works.—Thomas B. Weston, manufacturer of edge tools, temporary address 735 East Pratt street, is clearing site of his former plant at 203 McElroy's wharf, preparatory to erecting a more modern plant. The structure will be two stories high.

Baltimore—Printing and Stationery.—Messrs. Lucas Bros., 317 North Charles street, will erect a modern building on their old site, 116 East Baltimore street, for the printing and stationery business. The structure will be built of brick with copper and glass front, to cost about \$15,000.

Baltimore—Canning Factories.—William Numseun & Sons (Inc.), Fifth lane and Jackson street, general canners, have awarded contract to Henry Pierson, 1000 Hanover street, to erect at Genesee, Illinois, seven frame factory building for canning purposes. Capacity of plant to be from 150,000 to 200,000 cans per day. All

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kinds of canning machinery will be installed.

Baltimore—Machinery and Supplies.—The Maryland Equipment & Supply Co. has been incorporated, with capital stock of \$10,000, to deal in all kinds of machinery and supplies. The incorporators are Messrs. Walter J. King; Charles D. Cugle, 213 Hawthorn road; James J. Butler, 406 E. Biddle street; F. P. K. Walsh and Thomas F. McGlone.

Baltimore—Printing Plant and Book Bindery.—John S. Bridges & Co., 2 E. Saratoga, contemplate the erection at 28 S. Charles street, of a five-story brick building, 40x110 feet, with store front and tin roof, to be equipped with electric lights and one hand elevator. An equipment of machinery for printing and book binding will be installed.

Baltimore—Printing and Book-Bindery Plant.—Lucas Bros., 317 N. Charles street, will erect at their old site a five-story copper and glass-front building, 20x130 feet, with tin roof, equipped with steam heat and electric elevators. A gallery will be installed in the first floor. All kinds of printing and book-binding machinery, which will be operated by electric motors, will be installed. Cost, about \$15,000.

Baltimore—Surgical Instruments and Manufactory.—Further details have been obtained regarding the remodelling of building at 310 N. Eutaw street for F. Arnold & Sons, dealers in and makers of surgical instruments. The structure is three stories high. A fancy store front will be put in, a rear addition will be erected, metal ceilings will be used and machinery for manufacturing and repairing surgical instruments will be installed. About \$5000 will be the cost of the building improvements. Alfred Mason, architect, 746 W. Baltimore street, is preparing the plans and specifications.

Baltimore—Manufacturing Fly Screens, Weather Strips, etc.—Further details have been obtained regarding the plant of M. Solomson & Co., reported last week. They can be addressed at 1616 W. North avenue, and their building (specifications reported last week) will be equipped with double dry kiln, 50 horse-power steam plant, electric plant and other necessary machinery for manufacturing fly screens, moldings and weather strips. Solomson & Co. are in the market for prices on 50 horse-power steam engine (new), also for complete outfit of woodworking machinery, electric plant, etc.

Baltimore—Type and Electrotype Foundry.—Messrs. Spencer & Hall, temporary address 801-803 Ashland avenue, have purchased complete equipment of machinery for their type and electrotype foundry, reported last week. They state they have secured the modern plant that R. Hoe & Co., of New York City, had built to be sent to the Louisiana Purchase Exposition at St. Louis as an exhibit. About \$15,000 is being invested.

Baltimore—Draft Gear Manufacturing.—J. Edward Harvey, Dwight F. Mallory, 430 W. Cross street; John H. Farlow, 714 N. Fulton avenue, and others, have incorporated the Fallow Draft Gear Co., with capital stock of \$250,000. Their purpose is stated to be the manufacture of draft gears, etc.

Baltimore—Edge Tool Works.—Thomas B. Weston, 205 McElderry's Wharf, will erect two-story brick building, 25 x 60 feet, with concrete on first floor. Shop to be equipped with gas engine, pulleys, shafting and belting, and other machinery necessary for the manufacture of edge tools.

Baltimore—Printing and Publishing.—The Baltimore Methodist Co., Rev. L. H. Pearce, editor, 316 North Charles street, will range to replace its printing and publishing plant, recently destroyed by fire. Plans for the new establishment are being considered in a general way.

Baltimore—Paint Manufacturing.—The Thomas Paint Mfg. Co., painters and manufacturers of roof paints, have concentrated all the branches of their industry at 754 W. Baltimore street.

Baltimore—Glass-bottle Factory.—Henry P. Nivison, recently of Cincinnati, Ohio; Western and Baltimore capitalists, will incorporate the Nivison Glass Co., with capital stock of \$75,000, for the purpose of establishing a plant for the manufacture of glass bottles. A tract of land, 175x500 feet, has been purchased at Fort avenue and Lawrence street, and on it will be erected the buildings. Bulking for glass blowing will be one story high, 80x150 feet, of steel and corrugated iron, with corrugated iron roofing and brick floor. Materials building to be of frame, 30x100 feet, with gravel roof. Two warehouses to be of frame with gravel roof. The plant is ex-

pected to be completed by September, and will employ 150 persons. Messrs. Fowler & Thomas, attorneys, 347 North Charles street, represent the projectors of the enterprise. Last August the Manufacturers' Record announced that Mr. Nivison intended arranging to establish a glass plant in Baltimore.

Baltimore—Bottle Seal Manufacturing Plant.—Crown Cork & Seal Co., 1511 to 1523 N. Guilford avenue, has awarded contract to Messrs. George Bunnecke & Sons, contractors, 305 St. Paul street, for erection of new building, recently reported. Structure to be five stories high, with basement, 71 x 130 feet, brick with brownstone finish and concrete foundation, steel construction, slag roofing, all floors throughout the building to be of cement; iron stairways; rolling steel doors; metal window frames and sashes; fireproof construction throughout. Electric wiring and fixtures, sanitary plumbing, elevators, and steam-heating system will be installed. Jackson C. Gott, architect, 218 N. Charles street, prepared the plans and specifications.

Baltimore—Biscuit Manufacturing.—National Biscuit Co., James D. Mason, local representative, 808 Fidelity Building, Charles and Lexington streets, will build a four-story brick warehouse, 38 x 30 feet, costing probably \$10,000, at 304, 306 and 308 Pratt street; stone trimmings, iron beams, slag roofing, plumbing, no fireproofing. Messrs. Wyatt & Notling, architects, 30 Builders' Exchange, have furnished the plans and specifications for the structure. Messrs. Henry Smith & Son, contractors, 116 S. Regester street, have the building contract.

Baltimore—Printing Plant.—W. J. Gallery & Co., printers and publishers, 5 W. Mulberry street, leased power, in the burned district, from the Hermange Power & Building Co., Edmond V. Hermange, superintendent, Willow avenue near St. George avenue. They will return and restore their printing plant in the district as soon as a satisfactory location can be secured. Nothing is known as yet as to the Hermange Co.'s intention of rebuilding its plant.

Baltimore—Machine Shops and Supply House.—Thomas C. Basshor Co., engineers, contractors and machine supplies, 220 W. Pratt street, will erect new structure at 28 Light street, to replace building destroyed by fire. Structure to be three or four stories high, 25 x 160 feet, of brick, with tin roof, and will be equipped with electric wiring and fixtures, sanitary plumbing and steam-heating system. Boilers, engines, pulleys, shafting, belting and one steam elevator will be installed, also everything necessary for full equipment of machine and pipe shops, which will be located on the first floor.

Baltimore—Picture Frame Manufacturing.—It is reported that Furst Bros. & Co., manufacturers of picture frames, moulding and similar material, will double the capacity of their present plant at Leudenhall, Ostend and Race streets, a six-story building of brick, 80 x 350 feet, the building and mechanical equipment to cost about \$50,000.

Baltimore—Rubber Goods.—Potomac Rubber Co. has been incorporated, with capital of \$10,000, to manufacture and deal in rubber goods. The incorporators are Messrs. Silas M. Fleischer, 2010 Madison avenue, Abram Ulman, Julius H. Wyman, 200 Maryland Telephone Building, Lexington and Courtland streets, and others.

Baltimore—Dyeing Plant.—The dyeing plant of Victor G. Bloede Co., Canton avenue near Frederick road, was destroyed by fire during the week, the loss being reported at about \$5000. The company dyes textile goods and manufactures the dry colors used by the United States Government in printing paper currency.

Baltimore—Power House.—Northern Central Railway Co. will build a power house and boiler room, one story high, of brick, 30 x 60.5 and 5.10 to 28.2 feet, costing \$6000. Company is the contractor and chief engineer. W. H. Brown, of Philadelphia, Pa., furnished the plans and specifications.

Baltimore—Collar Factory.—James Haswell & Son, contractors, 350 Oxford street, have contract to remodel building at Sharp and Conway streets, the structure to be used as a collar factory.

Baltimore—Warehouse and Store.—Mrs. Henry Jarrett, of Pittsburg, represented by Charles Morton, real estate broker, 209 St. Paul street, will erect a warehouse on Baltimore street, to replace one destroyed by fire, recently mentioned. Structure to be four stories high, 16 x 100 feet, with store front. Cost to be about \$35,000.

Baltimore—Residence.—John Fitzberger, 207 Park avenue, has awarded contract to

Morrow Bros., builders, 212 Clay street, for remodeling his residence, 835 Park avenue. New front building, three stories high, 18 x 20 feet, of brick with tin roof, will be erected, and roof on old building will be raised one story. Front will have galvanized iron bay windows and porch. Electric wiring and fixtures, sanitary plumbing and steam-heating system will be installed.

Baltimore—Store Buildings.—Jos. Greenthal, 14 Centre Market Space, will erect four two-story store and dwelling houses, each 12 x 55 feet, fronts to be of brick, roofs to be flat, of tin, total cost \$6000. Contract for construction has been awarded to L. T. Stein, probably of 1311 E. Fayette street.

Baltimore—Warehouse.—John Moritz, address not known, contemplates erecting, on Exchange place near South street, a four-story warehouse, 24 x 50 feet. Harry H. Brown, contractor, 109 Clay street, is estimating on the construction work required.

#### ALABAMA.

Bessemer—Water Mains.—Bessemer Water Works Co. will lay additional water mains to Hawkins Springs, a distance of four miles, for increasing water supply.

Birmingham—Engine Works.—White-Blakeslee Mfg. Co. will rebuild plant recently burned at a loss of \$10,000; building will be of brick, 72 x 128 feet, with 32-foot span in center for electric crane. New machinery will be installed.

Birmingham—Manufacturing.—Vulcan Mfg. & Trading Co. has been incorporated by J. A. MacKnight and others, with capital of \$10,000, to manufacture and sell miniature statues of Vulcan.

Birmingham—Macaroni Factory.—Birmingham Macaroni Co. has been incorporated, with \$30,000 capital, to take over the plant of the Birmingham Macaroni factory. W. H. Frutticher is president; P. J. Serlo, secretary-treasurer and general manager.

Bridgeport—Electric-light and Power Plant.—A. Grant Davis, Parkersburg, W. Va., has secured franchise for erection of light and power plant.

Kemps Creek—Electric-light Plant.—It is reported that an electric-light plant will be built at a cost of \$25,000. Frank F. Taylor can give information.

Mobile—Veneer Factory, Dry Kiln, etc.—R. P. Leahy will rebuild veneer factory and dry kiln reported burned at a loss of \$15,000.

Mobile—Mill Supply Company.—Walter A. Zelnicker Co., of Alabama, has been incorporated, with \$90,000 capital, to conduct a general railway, mill and factory supply business. Walter A. Zelnicker is president, Wilson Ashley vice-president and Jas. H. Zelnicker secretary-treasurer. Company will absorb business now conducted as Mobile branch of Walter A. Zelnicker Supply Co., of St. Louis, and the business of Chas. W. Stanton & Co. New firm will be under active management of Jas. H. Zelnicker and Wilson Ashley.

Mount Vernon—Lumber.—Cedar Creek Lumber Co. has incorporated, with \$10,000 capital, to conduct a general lumber business. James Ducloux, president; Frank H. Fuller, vice-president, and William S. Cameron, secretary-treasurer.

Piedmont—Water Works.—City contemplates enlarging system of water works. E. D. McClelen, secretary.

#### ARKANSAS.

Batesville—Stone.—Batesville Stone Co. has incorporated, with capital of \$50,000. Chas. A. Pfleiffer, R. C. Dorr and Otto Pfleiffer are incorporators.

Blytheville—Brick and Tile Works.—Chartered: Blytheville Brick & Tile Co., with J. H. Edwards, president; H. C. Davis, vice-president, and R. L. Morris, secretary-treasurer. Capital \$10,000.

Bono—Mercantile.—Chartered: Bono Mercantile Co., with capital of \$5000, by George A. Lamb and others.

Conway—Supplies.—Conway Supply Co. has been incorporated by J. E. Martin, Besse M. Martin and Daniel E. Martin, with \$5000 capital.

English—Cotton Gin.—It is reported that T. B. Goldshy will erect cotton gin.

Eureka Springs—Lumber Mill.—W. B. Baker and Kelley Bros., operating yards at Berryville and Eureka Springs, have incorporated the Eureka Lumber Co., with capital of \$50,000. Company has purchased the Massman mill and 3700 acres of timber land.

Fayetteville—Development.—Chartered: Fayetteville Development Co., with capital of \$6000, by C. H. Bell, J. C. Futrell and others.

Fort Smith—Drugs.—Chartered: Gesick & Crampton Co., with capital of \$5000, by Ford L. Crampton and others.

Little Rock—Lumber.—Pritchard Lumber Co. has incorporated, with \$500,000 capital. J. H. Pritchard is president; Charles Neimyer, vice-president; Esten Peloubet, secretary-treasurer.

Monticello—Ice Plant.—Jeff Hicks, president Arkansas & Texas Consolidated Ice & Coal Co., Pine Bluff, Ark., has purchased the Monticello ice plant and will install a 30-ton ice plant additional at a cost of \$40,000.

Weldon—Cotton Gin.—Weldon Gin Co. has incorporated, with capital of \$75,000, with B. B. Bond, president; W. T. Sweet, vice-president and Charles G. Henry, secretary.

Williford—Mining.—O. M. Pruitt, A. C. Doss and E. E. Doss have incorporated the Alpha Mining Co. of Williford and Indianapolis, Ind., with capital of \$100,000.

Williford—Mining Company.—McKnight Mining Co., of Williford and McKnight Place, has incorporated, with \$600,000 capital. O. M. Pruitt is president; D. L. King, vice-president, and A. L. Doss, secretary-treasurer.

#### FLORIDA.

Eagle Lake—Mercantile.—Fengin-Warren Mercantile Co. has incorporated, with capital of \$5000, by M. O. Fengin, L. O. Fengin, R. L. Warren and others.

Palatka—Foundry.—Stanton Foundry & Machine Co., reported last week as incorporated with capital of \$15,000 paid in, consolidates with the Palatka Iron and Brass Foundry, having purchased 300 feet of river front, which will be used in further extending the works.\*

#### GEORGIA.

Atlanta—Ice Factory.—Atlanta Oil & Fertilizer Co., W. M. McKenzie, president, will establish ice factory.

Atlanta—Implement Company.—Cotton Belt Implement Co. has been incorporated, with \$100,000 capital, by Hugh Robison and others.

Atlanta—Blanket Mill.—George A. Speer, A. Koplin, George W. Parrott and others have incorporated the Southern Blanket Mills, with capital stock of \$50,000, for manufacturing blankets from fibrous materials.

Atlanta—Reservoir.—City has purchased site and will erect 300,000,000-gallon reservoir at a cost of \$58,643. R. M. Clayton, city engineer.

Augusta—Paint Company.—E. J. O'Connor, J. B. Schweers, W. B. Young, Henry H. Cumming and associates have incorporated the O'Connor-Schweers Paint Co., with capital of \$30,000.

Columbus—Machine Shops.—Seaboard Air Line Railway contemplates building shops in Columbus. J. M. Barr, general manager, Portsmouth, Va.

Cordele—Turpentine Plants.—Bert Simpson, of Cincinnati, O.; George P. Murrell and P. M. Reed, of Atlanta, Ga., are investigating, with view to establishing turpentine plants in Cordele and other towns in southwest Georgia.

Griffin—Cotton Mill.—Griffin Mfg. Co. has engaged Charles Wheeler as architect and engineer in charge of constructing its additional 10,000-spindle mill recently reported. Mill building will be two stories high, of brick, 75x336 feet, to contain 10,112 spindles and 396 looms, for manufacturing gingham. Warehouses, power house, dye house, operatives' cottages, etc., will also be built. About 1400 horse-power will be used, 1000 from local water power-electrical plant and 400 from steam plant of Griffin Co.'s present mill. Probably from \$200,000 to \$250,000 will be expended.

Savannah—Navigation.—Thunderbolt Marine & Navigation Co. has increased capital from \$2500 to \$10,000.

Valdosta—Saw Mills.—J. H. Trump, H. O. Clements and C. B. Duffey have secured options on large quantities of timber land near Valdosta, and will build saw mills.

#### KENTUCKY.

Bowling Green—Cannery.—Southern Canning Co., reported recently as incorporated with capital of \$25,000 for establishing cannery, will have capacity of 90,000 cans per day. Contract for equipment has been awarded.

Crittenden County—Lead, Zinc, etc., Mines.—C. S. Knight, of Fort Wayne, Ind., has, it is reported, purchased \$10,000 worth of machinery to be installed in his lead, zinc and fluor-spar mines being developed in Livingstone, Crittenden and Caldwell counties.

Hartford—Planing Mill.—Hartford Mill Co. is name of \$10,000 company reported last week to be organized for erection of mill to make flooring, etc.\*

Louisville—Land Improvement.—Kentucky Land Investment Co. has been incorporated, with capital of \$9000, by L. H. Wymond, C. M. Pate, M. J. Holt and others.

Louisville—Bakery.—A. G. Nagel, 644 Fourth street, will rebuild bakery lately reported burned. Building will be 40 x 200 feet. Hinshaw & Markham are architects.\*

Louisville—Mineral and Timber Lands.—Kentucky Land Investment Co. has been incorporated, with capital of \$9000, for dealing in timber and mineral lands. L. H. Wymond, C. M. Pate, A. J. Carroll, W. B. Dixon, M. J. Holt and others.

Madisonville—Water Works.—City is having plans prepared by L. E. Morgan, of Chicago, Ill., for new system of water works. If plans are satisfactory a franchise will be advertised and sold to highest bidder.

Uniontown—Electric-light Plant.—C. F. Cecil, Springfield, Ky., has purchased electric-light plant of W. H. Hain, at Uniontown, and will make improvements.

Webster County—Coal Mines.—J. H. Wheatenroft, operating the Wheatenroft Coal & Mining Co., Wheatenroft, Ky., has purchased 1000 acres of coal lands in Webster county for development. Shaft will at once be sunk and another coal tipple erected.

#### LOUISIANA.

Baton Rouge—Public Improvements.—City contemplates issuing \$150,000 additional bonds to increase asphalt street system, extend sewerage, build school-houses and construct water works. Address The Mayor.

Crowley—Grain and Feed Mill.—Lawrence Bros. will erect grain and feed mill.

Crowley—Irrigation Plant.—Chartered: Louisiana Irrigation Co., with \$2,000,000 capital, to construct plant for irrigation purposes. William W. Duson is president; Miron Abbott, vice-president; A. B. Allison, secretary-treasurer.

Edwards—Artesian Well.—City will vote April 5 on the advisability of letting contract to bore artesian well at cost of \$4000. Address The Mayor.

Frierson—Canneries, etc.—Louisiana Orchard Culture Co., Ltd., reported recently incorporated with capital of \$100,000, has for its object the growing of commercial orchards, maintaining canneries, evaporators, etc. For further particulars address H. B. Hartman, president, Commerce Building, Kansas City, Mo.

Jennings—Cotton Gin.—Erection of cotton gin is contemplated. Address Commercial League for information.

Jennings—Rice Mill.—It is reported that James R. Webster, of Crowley, La., will organize company to erect rice mill.

Natchitoches—Street Paving.—City has let contract to the Miller Paving Co., of Memphis, Tenn., at \$9252, for paving Front street with 440 yards of vitrified brick. Julius Aaron, Mayor.

New Orleans—Bagasse-board Factories.—The Fibre Board Co., organized in Boston, will manufacture boards from bagasse (the refuse at sugar-cane mills), establishing a chain of manufacturing plants in the Louisiana sugar belt. The first plant will be a unit with an annual output of 7500 pounds of boards. The boards will be suitable for use in making baskets, car breasts, car panels, table tops, etc. The process of manufacture is the invention of C. Tenant Lee, of Boston, president of the company, and now registered at the St. Charles Hotel, New Orleans, while making arrangements to establish the proposed factories.

New Orleans—Land Improvement and Development.—Borgne mouth Realty Co. has been organized by S. P. Walmsley, E. H. Farrar, Gourdin Smith, A. F. Livaudais and W. P. Curtis, with \$50,000 capital. Company has purchased land on both sides of the Lake Borgne canal near the Mississippi river and will establish manufacturing town to be known as Borgne mouth, cultivate rice lands, erect hotel, operatives' houses, etc. Office at 121 Carondelet street, New Orleans.

Oakdale—Lumber Mills.—Industrial Lumber Co., with offices at Beaumont, Tex., will expend \$100,000 for increasing capacity of its four Louisiana mills.

Ponchatoula—Ice Factory.—Ponchatoula Ice Co., Limited, has been incorporated, with capital of \$10,000, to manufacture ice, furnish electric lights, etc. J. R. Abels is president; P. D. Parks, secretary-treasurer.

Shreveport—Furniture Factory.—H. L. Perkins, of New Orleans, La.; J. A. Stephenson, of Shreveport, La., and Brayton Armstrong, of Lake Charles, have incorporated \$75,000 company for establishing furniture factory.

#### MARYLAND.

Cumberland—Car Brake Works.—Emergency Car Brake Co. has been incorporated, with capital of \$50,000, for manufacture of car brakes and car fittings by Henry Fresh, Conrad G. Smith, Henry A. Hensey, James W. Thomas, of Cumberland, and Asa F. Speicher, of Somerset, Pa.

Leonardtown—Telephone System.—Chartered: Southern Maryland Telephone Co., with \$5000 capital, for building telephone line from Leonardtown to Charlotte Hall. Incorporators John B. Ballenger, I. Francis Coal, George M. Thomas, Zachariah R. Morgan and L. Johnson Carter.

Rockdale—Powder Plant.—Rockdale Powder Co. will rebuild plant recently reported burned.

Washington, D. C.—Brokerage.—MacDonald Co. has incorporated with \$50,000 capital. Incorporators: George H. MacDonald, Morton Q. MacDonald, Washington; Charles D. Clinton, New York, and Walton S. Shepherd, of Prince, W. Va.

Westminster—Machine Shops.—Atlantic Machine Works has incorporated, with capital of \$15,000, to establish machine capital of \$15,000, with E. Oliver Grimes as president; William H. Leiser, vice-president; Franklin M. Beggs, secretary, and Howard Schaffer, treasurer. Company has plant established, and is manufacturing the Leister can and shade-roller labelers. Plant includes planing, lathe, gas engine, drilling and other machines. New gas engine of 12 horse-power has been contracted for and will be installed.

#### MISSISSIPPI.

Clarksdale—Realty Company.—W. B. Potts, W. G. Meeks and others have incorporated the Clarksdale Real Estate Co., with \$20,000 capital.

Indianola—Light, Ice and Coal.—Indianola Light, Ice & Coal Co. has been incorporated, with \$9000 capital, by A. F. Gardner, W. T. Petts and others.

Jackson—Lumber.—Geneva Lumber Co. has increased capital to \$20,000.

Liberty—Mercantile.—Chartered: Liberty Mercantile Co.

Meridian—Bottling Works.—Chartered: Meridian Coca-Cola Bottling Works, with capital of \$7500.

Meridian—Telephone System.—C. E. Wise, representing Jones & Winter, Chicago, Ill., has applied for franchise to construct underground system with long distance connections.

Merrill—Excelsior Factory.—W. E. Kennedy, of Mobile, Ala., is erecting excelsior factory near Merrill.

Mount Olive—Cotton Compress.—Mount Olive Compress Co. has been incorporated, with capital of \$25,000, for erecting cotton compress, previously reported.

Pittsboro—Spoke Factory.—It is reported that C. B. Vance, J. C. Price and A. L. Jagoe, all of Batesville, Miss., will establish spoke factory.

#### MISSOURI.

Aurora—Mining.—W. E. Simpson, E. Emmons, R. L. Adams and others have incorporated the Big Bonanza Mining Co. with \$50,000 capital.

Boaz—Cannery.—Boaz Canning Co. has been incorporated, with capital of \$3500, by A. J. Bryant, S. M. Pearce, J. W. Wampler and others.

Carthage—Mining.—Wild Rose Mining Co. has been incorporated by Howard Gray, J. W. Meredith, J. A. Johnson and others, with \$50,000 capital.

Doniphan—Canning Factory.—J. W. Quinn, representing the Hastings Industrial Co., Chicago, Ill., has made proposition to establish \$5000 canning factory with capacity of 1000 dozen cans of tomatoes daily.

Joplin—Mining.—South Portland Mining Co. has been incorporated, with \$50,000 capital, by Frank Nicholson, J. W. Frick, C. W. Nicholson and others.

Kansas City—Desk Factory.—Central Desk & Seat Mfg. Co. has been incorporated, with capital of \$3000, by Brown Y. Willis, W. D. Walter and Richard Burke.

Kansas City—Land.—Chartered: Petites Land Co., with capital of \$80,000, by P. E. Chappell, Charles J. Hubbard and E. F. Swinney.

Kansas City—Medicine.—Chartered: Dr. Miller Medicine Co., with capital of \$70,000, by Herbert Beckwith, E. B. Jacobs and L. E. Frost.

Kansas City—Flour Mill.—Bulte Milling Co. will erect \$100,000 flour mill.

Kansas City—Grain Elevator.—Hinds & Lint Grain Co., Atchison, Kan., contemplate building 100,000-bushel grain elevator.

Rolla—Land and Investment.—Incorporated: Rolla Land & Investment Co., by B. H. Rucker, D. E. Cowan, R. H. Black and others, with \$20,000 capital.

St. Louis—Real Estate.—Chartered: Goodfellow Investment Co., with capital of \$300,000, by Albert Upton, William H. Millerberger and others.

St. Louis—Chemical Works.—Lilly Chemical Co. has incorporated, with capital of \$5000. Julius K. Goodwin, Chas. A. Scream and others incorporators.

St. Louis—Novelty Works.—General Equipment Co., with capital of \$25,000, has incorporated for manufacturing novelties and patent equipments. F. B. Weeks, W. D. Mahaney and others incorporators.

St. Louis—Chemical Works.—E. L. Black, Charles Erd and Howard J. Black have incorporated the Jerome Chemical Co., with capital of \$20,000.

St. Louis—Confectionery.—Chartered: W. F. Boerner Confectionery Co., with capital of \$10,000. Walter F. Boerner, Lester B. Cornwell, James R. Brashear and others incorporators.

St. Louis—Hardware.—E. E. Schoening, William L. Schoening and Charles A. Schoening have incorporated the Schoening Hardware Co., with \$20,000 capital.

St. Louis—Grain Elevator.—Columbia Hay & Grain Co., reported recently as incorporated, will build grain elevator and warehouse; building will be of brick and steel, 60x100 feet. All contracts have been made.

St. Louis—Ice and Coal.—Chartered: Medanich Ice & Coal Co., with \$10,000 capital. Incorporators Thomas Medanich, Joseph F. Medanich, Richard Sullivan.

St. Louis—Machinery.—Robert M. Mays, Frank L. Roop and G. W. Fryhofer have incorporated the Colonial Scale Co. to manufacture and deal in coin-controlled machines, with \$25,000 capital.

St. Louis—Hydrant System.—Country Hydrant Co. has been incorporated, with capital of \$200,000, to manufacture and sell patent hydrant systems, by Emil Blitz, William A. Hobby and William Wehrenbrecht, of St. Louis, and John Johnson, of Bethalto, Ill.

St. Louis—Manufacturing.—Charles Sieber Mfg. Co. has been incorporated, with \$2500 capital, to manufacture office specialties, novelties and stationers' sundries by Charles Sieber, Harry M. and Edward S. Sieber, all of Webster Groves, Mo.

St. Louis—Amusement Company.—Grove Hotel Co. has incorporated, with capital of \$25,000, to conduct hotel and amusement business. Incorporators: Adolph Lambeck, Henry F. Schwenker, Charles J. Dunnerman and others.

St. Louis—Coal and Ice.—Robinson Coal Co. has been incorporated, with capital of \$15,000, by Lewis P. Robinson, Oscar W. Robinson and Marrock Robinson.

St. Louis—Soda Fountain Manufacturing.—Claude T. Wulfrey, M. E. Gilliland and William T. Jones, of St. Louis; Hiram Grossman, of Marshall, Tex., have incorporated the Toka To Na Mfg. Co., to manufacture and sell soda fountains, supplies, extracts, prepared drinks, etc. Capital \$100,000.

St. Louis—Catering.—Lind-Blaly Catering Co. has been incorporated by Frank Lind, George M. Blair and Maurice Brocard. Capital \$10,000.

St. Louis—Life-saving Apparatus.—William H. Morrison, Conrad G. Besch and Joseph W. Hammer have incorporated the Morrison Life Belt Co., with \$5000 capital, to manufacture life belts, life preservers and other life-saving apparatus.

#### NORTH CAROLINA.

Asheville—Timber Land.—Craggy Lumber Co. has purchased 5765 acres of timber land on Craggy Mountain for development.

Calabash—Steamboat Transportation.—Wilmington, Southport & Little River Co. has incorporated, with capital of \$100,000. M. J. Corbett, R. R. Stone, W. A. Rourk, of Wilmington, N. C., incorporators.

Concord—Bagging and Tie Factory.—J. D. Hatchet, J. A. Skipwith, James Cannon and others have incorporated the Chicago

Bagging & Tie Co., to install machinery for working over bagging and ties from the

Concord—Electric-light Plant.—City has decided to purchase local plant, reported last month as under consideration. Address The Mayor.

Deppie—Cotton Gin, Saw and Grist Mill.—It is reported that E. H. Morton will establish saw mill, cotton gin and grist mill.

Elizabeth City—Steam-heating Plant.—H. Clay Tunis has been granted sixty-year franchise, to furnish city with hot water, heat and steam, and will at once establish plant.

Lowell—Cotton Mill.—J. C. Rankin, W. T. Lowe, J. W. Moore and Mrs. E. C. Wilson contemplate erecting a cotton mill of 10,000 spindles, to be operated by water power. An expenditure of about \$200,000 is indicated. The parties named own the Spencer Mountain Mills, operating 5000 spindles.

Monroe—Mercantile.—Chartered: People's Dry Goods Co., with authorized capital of \$50,000, by J. W. Laney and others.

Mocksville—Telephone System.—Mocksville Telephone Co. has incorporated, with \$10,000 capital, to construct and maintain telephone system in Davie, Forsyth, Iredell, Rowan, Yadkin and Davidson counties. Incorporators: L. G. Horn, G. E. Horn and J. B. Johnstone.

Salisbury—Mercantile.—R. M. Leonard Mercantile Co. has incorporated, with capital of \$10,000. R. M. Leonard and others incorporators.

Salisbury—Furniture.—Brown Furniture Co., J. S. Brown, president, has increased capital from \$50,000 to \$100,000.

Spencer—Land.—Chartered: Dorsett Land Co., with authorized capital of \$10,000, by James D. Dorsett, S. T. Dorsett and R. P. Dorsett.

Spencer—Railroad Shops.—J. P. Pettijohn & Co., of Lynchburg, Va., have been awarded contract by the Southern Railway for erecting shops at Spencer as previously reported.

Statesville—Chair Factory.—W. A. Thomas, W. T. Kincaid, Geo. H. Brown and others have incorporated the Attra Chair Co., with capital of \$50,000, to manufacture chairs and furniture of all kinds.

Wadesboro—Telephone System.—Rocky River Springs, recently reported incorporated, with \$25,000 capital, has completed organization, with G. Huntley, president; H. Haynie, vice-president; T. L. Gaudle, secretary-treasurer, and L. J. Huntley, manager. Company will build telephone line from Wadesboro to the Springs.

Wake Forest—Plow Foundry.—Wake Forest Foundry Co. has purchased the plant of the W. B. Dunn Plow Co.

Waynesville—Road Improvements.—Waynesville has issued \$50,000 of bonds for macadamizing and otherwise improving its roads. Address The Mayor.

Waynesville—Water Power Development.—City has accepted proposition of B. J. Stone to furnish electric lights for ten years. Mr. Stone has purchased site on Pigeon river, and will erect power plant, build stone cement dam, etc. Plant to have a capacity of 1500 H.-P. and cost \$50,000.

#### SOUTH CAROLINA.

Aiken—Clay Products Plant.—Pope Clay Product Co. has been incorporated, with capital stock of \$700,000, and will establish plant to manufacture pottery, glass, aluminum and to mine kaolin and other clays. J. C. Mosser and J. C. Murphy, of Harrisburg, Pa., are the incorporators. (The Manufacturers' Record reported several weeks ago that A. A. Pope, of Hartford, Conn., and associates had purchased 350 acres of kaolin lands for \$30,000, intending to develop same and erect a plant for manufacturing aluminum products.)

Chesterfield—Cottonseed-oil Mill.—D. M. Barrentine, R. E. Rivers, J. A. Welsh and W. P. Sweeney have incorporated the Farmers' Cottonseed-oil Mill, with capital of \$15,000.

Georgetown—Telephone System.—Georgetown Telephone & Telegraph Co. contemplates improving its system.

Greer—Cotton Mill.—Franklin Mills will add 7000 spindles and 300 looms, no additional buildings being required; it now has 5000 ring spindles. J. M. Geer, of Easley, S. C., is president and in charge. Probably \$150,000 will be expended.

Greers—Cotton Mill.—Victor Mfg. Co. has decided as to the enlargement reported in January as contemplated. It will increase capital from \$350,000 to \$700,000, and add 25,000 spindles, 700 looms and necessary preparatory machinery. Contract for erect-

[March 17, 1904.]

ing the necessary three-story brick building awarded to Flynt Building & Construction Co., of Palmer, Mass. J. E. Shirline, of Greenville, S. C., is the engineer in charge. (Present plant has 27,000 spindles and 700 looms.)

**Greenville**—Cotton Mill.—Camperdown Mills (theretofore operated by Huguenot Mills) has incorporated and the plant will be doubled, giving a total of about 10,000 spindles and 432 looms, producing ginghams. Company is capitalized at \$100,000. C. E. Graham will be president.

**Honeypath**—Cotton Mill.—Chiquola Mfg. Co. will build this summer an additional mill to contain 24,800 spindles and 600 looms, investing about \$350,000. Capital will be increased to cover the cost, and the necessary amount has been subscribed. New building will be 130x150 feet in size. J. E. Shirline, of Greenville, S. C., is the engineer in charge. The company's executive will visit the North to make contracts for most of the machinery required. (President Chiquola plant has 15,840 spindles and 400 looms, manufacturing fine sheetings.)

**Lake City**—Manufacturing.—Lake City Mfg. Co. has been incorporated, with capital of \$8000, by W. F. L. Steele and Geo. A. Brown.

**Orangeburg**—Grain Company.—Chartered: Orangeburg Grain Co., with capital of \$3000. Incorporators, H. W. Lathrop and Irvin S. Harley.

**Spartanburg**—Knitting Mill.—Crescent Mfg. Co. has been incorporated, with capital of \$50,000, to establish the knitting mill reported last week, the cost of plant to be \$32,000. A dyeing department will also be installed. Fifty knitting machines will be the initial equipment. J. J. Littlejohn and D. D. Little are the incorporators.

#### TENNESSEE.

**Ashland City**—Tobacco Factory.—Carr Long, of Cedar Hill, Tenn., will establish tobacco factory at Ashland City, and has leased Snell Bros. factory.

**Brazil**—Cotton Gin.—Everette, Howse & Ragan will install machinery for doubling the capacity of their cotton gin.

**Chattanooga**—Steel Plant.—Harvey L. Bishop, of Chicago, Ill., is investigating Chattanooga as site for location of steel plant, and will organize stock company to operate it.

**Chattanooga**—Acetylene and Gas Burner, etc.—American Lava Co., reported last week, incorporated, with capital of \$30,000, will manufacture acetylene and gas burners and tips, electrical insulators and specialties, taking over the established plant and business of the Sunlight Lava Mfg. Co.

**Chattanooga**—Cooperage.—Chattanooga Cooperage Co. has installed new machinery for increasing capacity; capital has also been increased from \$10,000 to \$15,000.

**Chattanooga**—Steel Plant.—It is reported that R. S. Mann, of Harrison, W. Va., representing Wisconsin capitalists, is investigating Chattanooga with a view to establishing \$50,000 steel plant.

**Dayton**—Electric-light Plant.—City has granted 15-year franchise to Thomas Edgar Stone for the erection of electric-light system.

**Dyer**—Cotton Gin.—Everette & Baird will install machinery for doubling capacity of cotton gin.

**Humphreys**—Saw Mills.—Wisconsin parties have purchased 4000 acres of timber land near Humphreys and will erect saw mills. Seals & Morris, of Waverly, Tenn., completed the sale.

**Knoxville**—Brewery.—East Tennessee Brewing Co. will make extensive improvements, which include installation of complete electric-lighting system, steam compressor, boilers, etc.

**Knoxville**—Manufacturing.—Scott Patent Brick Car Co. has filed an amendment to charter changing name to Scott & Oliver Manufacturing Co. Incorporators, Alex. McMillan, W. J. Oliver, Alex. A. Scott and others.

**Knoxville**—Mercantile.—E. G. Oates, H. B. Lindsay, A. C. Davis and others have incorporated the Davis Brothers' Co., with capital of \$10,000.

**Knoxville**—Mercantile.—Chartered: Charles C. Cullen & Co., with \$20,000 capital, to take over queensware and china business of Cullen & Shields. Incorporators: C. C. Cullen, W. C. Ross, A. F. Sanford and others.

**Knoxville**—Water Power Development.—R. E. Harwood, C. E., Box 191, is interested in the construction of dam and tunnel for water power purposes.

**Lawrenceburg**—Cannery.—Lawrenceburg

Canning Co. will erect warehouse and install additional equipment.\*

**Lawrenceburg**—Cannery, etc.—Dr. R. H. Harvey, proprietor, Lawrenceburg Mill Co., will build addition to mill and install equipment for cannery.

**Memphis**—Mercantile.—J. M. Winkler Co. has been incorporated, with capital of \$10,000, by J. W. Winkler, George Thomas, A. J. Williford and others.

**Memphis**—Steam Heating.—Wm. S. Morgan, Arthur W. Hoge, E. B. Tyler and others have incorporated the Memphis Heating Co., with \$10,000 capital, to conduct heating plant, by steam, hot air, etc.

**Memphis**—Brick Company.—Tennessee Brick Co. has increased capital from \$20,000 to \$60,000.

**Memphis**—Grocery.—George Arnold, Frank J. Scarborough, Ben R. Henderson, Jr., and associates, have incorporated the Arnold Grocery Co. (established) with \$30,000 capital.

**Nashville**—Store-shelving Factory.—A \$100,000 company is being organized to manufacture patent revolving shelves and display holders, patented by T. H. Moulton and William White.

**Nashville**—Trunk and Bag Factory.—White Trunk & Bag Co. has let contract for factory building to be erected in West Nashville.

**Vale**—Telephone System.—Western Dixie Telephone Co. has been organized with E. B. Simmons, president; Dr. Florence, vice-president, and A. N. Presson, secretary-treasurer.

**Yorkville**—Flour Mill.—G. W. Reed, cashier People's Bank of Kenton, Tenn., and J. F. Reed, Selmer, Tenn., have taken over Yorkville Roller Mills and will improve and operate same with J. F. Reed as manager.

#### TEXAS.

**Abilene**—Lumber.—F. C. D. Roberts, E. F. Elkin and W. B. Elkin have incorporated the Taylor County Lumber Co., with capital of \$20,000, for buying and selling lumber.

**Austin**—Water Company.—San Marcos Water Co. has increased capital from \$50,000 to \$75,000.

**Benumont**—Woodworking Factory.—Beta Mfg. Co., operating box factory, will expend \$10,000 in improvements, which include installation of machinery for manufacture of sash, doors and blinds.

**Benumont**—Gas Plant.—Beaumont Gas Co. will improve its plant at a cost of \$10,000, including installation of machinery to extract gas from crude petroleum oil.

**Beaumont**—Development Company.—Chartered: Marx-Gibbough Co., with \$15,000 capital, by Leon Blum, M. Marx, F. M. Gibbough, of Galveston, and M. B. Yates, of Dallas, Tex.

**Brownsville**—Land Improvement.—Lyndsay Town & Improvement Co. has incorporated, with capital of \$20,000, for improving and developing 440 acres of land. Charles Lyndsey is president; Uriah Lott, vice-president, and Frank Champion, secretary.

**Burton**—Oil Wells.—Washington County Development Co. has incorporated, with \$100,000 capital, to prospect for, develop and market oil. Incorporators: W. B. Francis, of Burton; William W. Thompson, Beaumont, Tex.; J. D. Fields, Giddings, Tex.; H. Fuchs, C. H. Laas, Brenham, Tex., and others.

**Coleman**—Brick Plant.—A stock company will be organized to establish plant with daily capacity of 30,000 bricks. F. P. Cooper and J. A. B. Miller are interested.

**Denton**—Flour Mill.—It is reported that F. M. Raynor and George T. Cobbs will erect flour mill.

**El Paso**—Mining.—Northern Mexico Development Co. has been incorporated, with capital of \$1,000,000, for mining in the United States and Mexico. Britton Davis is president; C. N. McAdoo, of Greensboro, N. C., vice-president and treasurer, and D. C. Sutton, general manager.

**El Paso**—Machine Shops.—It is reported the El Paso & Northeastern Railroad, Chas. B. Eddy, president and general manager, will remove shops from Alamogordo, Mex., to El Paso.

**Fort Worth**—Laundry.—Chartered: Texas Laundry Co., with capital of \$10,000, by O. C. Brogdon, I. V. Butler and A. J. Pautsch.

**Fort Worth**—Real Estate.—K. M. Van Zandt, Elias B. Van Zandt and Leroy A.

Smith have incorporated the K. M. Van Zandt Land Co., with \$50,000 capital.

**Hallettsville**—Tobacco Cultivation.—Lavaca County Tobacco Co. has been incorporated, with French Simpson, president, and William Blakeslee, secretary, for cultivation and manufacture of tobacco.

**Hamilton**—Ice and Electric-light Plant.—Hamilton Ice & Mfg. Co., reported recently as incorporated with capital of \$20,000, will erect and operate electric-light plant and ice factory.

**Houston**—Cooperage.—Gulf Cooperage Co. has incorporated, with capital of \$25,000, for manufacture and sale of cooperage materials. Incorporators, William F. North, Louis F. North, of Austin, Tex.; A. G. Ryley, H. C. Thompson, Robert Jeffrey, of Chicago, Ill.

**Houston**—Starch Factory.—Charles L. Vickers, Room 3, Cotton Exchange Building, is organizing company to manufacture starch from rice.\*

**Houston**—Rice Mill Machinery.—Couch Mfg. Co. has been incorporated to manufacture rice-milling machinery by A. B. Couch, C. B. Smith, R. K. Adamson and others, with capital of \$25,000.

**Jacksonville**—Mercantile.—A. B. Mandelstam Mercantile Co. has been incorporated, with \$10,000 capital, by Rosa Maymon, J. W. Shipman and Charles L. Edmiston.

**Port Arthur**—Oil Refinery.—The Texas Co. will enlarge its refinery at Port Arthur by addition of eight stills of 1000 barrels capacity each, which will increase refining capacity to a total of 12 1000-barrel stills; two steel storage tanks of 55,000 barrels capacity each are also to be added to present storage, which consists of 7 50,000-barrel tanks, one 55,000-barrel tank and one 37,500-barrel tank. The company was reported in our issue of March 3 as having purchased 8,000,000 feet of lumber, to be used in enlarging this plant.

**Ranger**—Mercantile.—T. W. Harrison, J. F. Dreinbofer and W. T. Garrett have incorporated the Ranger Mercantile Co., with \$10,000 capital.

**Rockdale**—Mining.—Big Lump Coal Co. and Rockdale Lignite Co. have consolidated, and will operate under management of J. H. Burnet.

**Taylor**—Hardware.—Chartered: Prewitt Hardware Co., with capital of \$50,000, by L. A. Prewitt, C. I. Everett and J. J. Thamies.

**Texas**—Steel Fence-post Works.—The Indestructible Post Co. has been incorporated, with capital stock of \$200,000, for the manufacture of steel fence posts with cement foundations. It takes over the fence-post department of the Inland Steel Co., of Chicago, by purchase. The post is made of a 1 $\frac{1}{4}$ x1 $\frac{1}{4}$ x32 hard-steel angle, inserted in a base of manufactured stone. The company contemplates building a plant in Texas to supply the Southwest demand. H. E. Speyer is general manager, offices at 716 First National Bank Building, Chicago.

**Waco**—Hardware.—Bomar Hardware Co. has been incorporated, with capital of \$20,000, for dealing in hardware, vehicles, house furnishings, etc., by T. B. Bomar, M. F. Bomar and Ed. Castleman.

**Waxahachie**—Water-works Improvement.—City will vote April 1 on issuance of \$25,000 of bonds for improvements to water works lately reported. Address The Mayor.

**Wharton**—Irrigation Plant.—It is reported that W. F. McCollough will establish irrigation plant near Wharton. Hahl & Co., of Houston, are also interested.

#### VIRGINIA.

**Charlottesville**—Chemical Plant.—Reports state that Charles E. Hughes, of Charlottesville, John F. Sommers, of Orange, Va., and associates will organize company to establish large chemical plant.

**Newport News**—Mercantile.—Chartered: A. J. Hamman Co., with capital of \$5000.

**Orange**—Sash, Door and Blind Factory.—H. E. and L. G. Grasty will establish sash, door and blind factory.

**Phoebe**—Street Improvements.—A bill has been introduced in the Legislature authorizing the city to issue \$50,000 of bonds for street improvements. Address The Mayor.

**Roanoke**—Coal-handling Machinery.—Frank Kent, of Montvale, Va., has invented a machine for loading coal and coke on cars and will establish plant for its manufacture.

**Williamsburg**—Water Works.—City will expend \$28,000 in construction of system of water works. Jno. K. Mercer, mayor.

**Wise**—Electric-light Plant and Water Works.—Judge Fulton, of Wise, Gen. R. G.

Ayers, of Big Stone Gap, Va., and others have organized company to establish electric-light plant and water works.

#### WEST VIRGINIA.

**Berkley Springs**—Power.—Cacapon Power Co. has been incorporated, with capital of \$100,000, by F. R. Reed, J. H. Siller, of Berkley Springs; Morrison Barclay, John Shumaker, Thomas Barclay, Greenburg, Pa., and others.

**Elkins**—Heading Factory.—J. R. Kendig and J. C. Hall, of Huntingdon, Pa., have purchased site in South Elkins and will erect plant for the manufacture of barrel headings.

**Grafton**—Brewery.—Home Brewing Co., reported organized last month with \$200,000 capital to erect brewery of 30,000 barrels per year capacity, has let construction contract to John V. Knotch, brewery engineer, of Pittsburg, Pa., at \$158,000, building to be three stories, of brick, stone and steel. Wm. Jennings is manager.

**Huntington**—Cigar Factory.—Smith & Evans will remove their cigar factory from Kenova to Huntington.

**Huttonsville**—Water Works.—Town contemplating construction of system of water works. Address Town Clerk.

**Keyser**—Mercantile.—Chartered: Rees Co., with capital of \$100,000, by W. Rees and others.

**Logan**—Furniture Factory.—Hudson School Furniture Co., reported last week as incorporated for manufacture of school furniture, is located in Athens, Ohio, and will remove plant from that point to Logan.

**Lynchburg**—Development Company.—Virginia Co. has been organized, with \$5,000,000 capital to develop mineral and timber lands in Virginia. F. C. Moon, of Lynchburg, Va., is president; Walter B. Crowell, of New York city, vice-president, and A. R. McCandless, also of New York, secretary-treasurer. Walter George Newman, 36 Broad street, New York, is largely interested.

**Montgomery**—Bridge.—A company is reported as being organized for building a \$60,000 suspension bridge across the Kanawha river. H. D. Allen can give information.

**Moundsville**—Sand Quarries.—The sand business at Chestnut Hill, conducted by George Griffith and George Jones, has been incorporated as the Chestnut Hill Sand Co.

**Newport News**—Boat Building.—Hampton Roads Boat Building Co., Inc., has been organized with Frank L. Small, president; A. W. Drew, vice-president and general manager, and Godfrey L. Smith, secretary, for building and repairing sail boats, power launches, rowboats and boats not over 100 feet in length. Company will at once erect plant and marine railway.

**Welch**—Coal Mines.—It is rumored that the United States Legal Corporation of Washington, D. C., has purchased 2100 acres of coal land in McDowell county, W. Va., and will commence mining operations at once; it is also said that 1000 coke ovens will be erected. The sale was announced by H. Lyon Smith, of 60 Wall street, New York.

**Wheeling**—Furniture.—J. W. Blatchley's Sons Furniture Co., with capital of \$25,000, has been incorporated by Thomas W. Blatchley and others.

**Wheeling**—Bottling Plant.—John W. Adams, James N. Hendrix and J. J. Jones, of Wheeling, and John E. Hendrix, of Benwood, have incorporated the Magnesia Springs Co., with capital of \$10,000, to conduct bottling and manufacturing business.

**Wheeling**—Telephone and Telegraph Systems.—Pittsburg & Wheeling Telegraph Co. has been incorporated to construct, maintain and operate telegraph and telephone lines, by John A. Howard, J. P. Young and W. C. Handlan, of Wheeling; J. G. Splane and R. G. Hall, of Pittsburg, Pa. Capital, \$100,000.

**Ada**—Cotton Compress.—Ada Compress Co., of Ada and Sherman, Tex., has incorporated, with \$50,000 capital, for maintenance of cotton compresses. Incorporators: Thomas Forbes, Jr., W. B. Birge, of Sherman, Tex.; Felix P. Bath, Fort Worth, Tex.; F. J. Phillips, Greenville, Tex.

**Beggs**—Oil Wells.—Beggs Development Co. has been incorporated, with \$50,000 capital, to sink oil wells.

**Durant**—Cannery, etc.—E. M. Gray, proprietor of Choctaw Nursery & Orchard Co., will establish cannery as lately reported, and will operate bottling works and candy factory in connection.\*

Muskogee—Oil Wells.—Incorporated: National Oil & Development Co., for a general development business in the Muskogee oil field. A. B. Butler, president; J. M. Givens, vice-president; R. L. Gordon, secretary, and J. L. Davis, treasurer. Capital \$500,000.

Muskogee—Mercantile—Adams Creek Supply Co. has been incorporated, with \$12,000 capital. W. S. Fears is president; F. M. Davis, vice-president; J. F. Darby, secretary, and Guy Bowman, treasurer.

South McAlester—Realty Company.—J. P. Parker, Robert B. Bland and John Henry Shepperd, all of Shreveport, La., have incorporated the Louisiana Realty Co., with \$200,000 capital. John Henry Shepperd, office South McAlester, is manager.

#### OKLAHOMA TERRITORY.

Douglas—Gas and Oil.—Chartered: Douglas Gas & Oil Co., with \$15,000 capital. Incorporators: Wilson Scott, Walter Jeffers, George G. Nicholson and others.

El Reno—Hardware.—Bonebrake Hardware Co. has been incorporated by E. A. and J. E. Bonebrake, El Reno; H. E. Bonebrake, Weatherford, O. T., and George E. Johnson, Sayre, O. T. Capital \$30,000.

Enid—Grain and Lumber.—Goltry & Sons' Grain & Lumber Co. has been incorporated by U. M., C. W. and S. T. Goltry, with \$50,000 capital.

Enid—Mercantile.—E. B. Henry, R. W. Ramsey, of Guthrie, and A. A. Ramsey, of Carthage, Mo., have incorporated E. B. Henry Dry Goods Co., with \$5000 capital.

Guthrie—Creamery.—Chartered: Oklahoma Creamery Co., with \$15,000 capital, by J. E. Stott, of Chicago; Robert S. Goss, R. F. George and Henry M. Ferguson, of Guthrie.

Guthrie—Oil.—Chartered: Nashville El Dorado Mining Co., with capital of \$500,000, by J. Alexander, J. E. Nicholson, of San Francisco, Cal., and G. V. Pattison, of Guthrie.

Guthrie—Oil Wells.—Northern Oil Co., of Guthrie and Bartlesville, I. T., has been incorporated, with \$25,000 capital, by F. T. Boston and P. F. T. Newman, of Stevens Point, and E. F. Blaise, of Perry, O. T.

Guthrie—Mining.—Incorporated: Great Western Oil Co., of Guthrie; Bartlesville, I. T., and St. Paul, Minn., with \$25,000 capital. Incorporators, E. E. Blaise, of Perry, O. T.; P. W. Clark, St. Paul, Minn.; R. W. Gilkey, Chicago, Ill.

Harrison—Telephone System.—Chartered: Gotebo Telephone Co., with capital of \$10,000, by H. Dalke and others.

Langston—Tools and Novelties.—Chas. Stoofire, W. J. Jackson and A. J. Alston have incorporated the Perfection Wire Tool & Novelty Co., with \$5000 capital.

Leger—Mercantile.—Garrison-Dunlap-Walker Co. has been incorporated by O. B. Garrison, of Ryan, I. T.; R. E. Dunlap and James A. Walker, of Leger, with \$25,000 capital.

Leger—Cotton Oil Mill.—It is reported that W. A. Wilhelm and R. K. Wooten, trustees of the Hobart & Chickasha Oil Companies will erect oil mill with 60 tons capacity.

Lela—Preserving Company.—Oklahoma Vegetable Preserving Co. has been incorporated, with \$100,000 capital, by J. W. Harrison, J. H. Herbert, B. E. Ross, of Lela; George A. Masters and Henry S. Johnston, of Perry.

Navina—Mercantile.—J. O. Steinfeldt, I. L. Brown, L. J. Stark and others have incorporated the Navina Commercial Store, with \$5000 capital.

Newkirk—Mercantile.—Kay & Kaw Mercantile Co. has increased capital from \$20,000 to \$21,000.

Oklahoma City—Construction Company.—H. C. Ulen, Jr., Co. has incorporated, with \$50,000 capital. Incorporators: H. C. Ulen, Jr., Clifford R. Moore, Mont F. Highley and others.

Stillwater—Oil.—Peerless Oil Co. has incorporated, with capital of \$25,000. J. B. Knotts, S. L. Calvert, J. E. Crouse, of Maumington, W. Va., and others, are incorporators.

Stroud—Hardware.—Stroud Hardware Co. has incorporated, with capital of \$6000, E. E. Wert, H. S. McMillan and others, incorporators.

Tankawa—Grain.—Chartered: Cassity & Fequay Grain Co., with capital of \$8100, by George M. Cassity and others.

Wildman—Milling.—Chartered: Otter Creek Milling Co., with \$1,000,000 capital. Incorporators: F. R. Wildman and J. W. Sanders, of Blair; P. W. Raemer, of Granite; R. K. Wootten, of Chickasha, I. T., and others.

#### BURNED.

Baltimore, Md.—Victor G. Bloede Co.'s plant, for dyeing textile goods and manufacturing dry colors used in printing paper currency for United States; loss reported at \$5000.

Benton, Texas.—Brown Hardware Co.'s building; loss, \$20,000.

Bynum, Tex.—James M. White's gin; loss \$10,000.

Buena Vista, Ark.—S. A. Graves' dry kiln; Camden, Ark.—S. A. Graves' saw mill; loss \$25,000.

Camilla, Ga.—Store building of I. I. Bertram; loss, \$15,000.

Cleburne—Texas.—Catholic Church Parsonage; loss, \$5000.

Deppie, N. C.—Munger & Bennett's saw mill.

Drake's Branch, Va.—Central Public Warehouse. Scott's warehouse; loss, \$10,000.

Flippin, Tenn.—M. F. Savage's cotton gin; estimated loss, \$1400.

Fort Worth, Texas.—Missouri Avenue Methodist Church South, valued at \$25,000. Address The Pastor.

Fort Worth, Texas.—Fifth Ward school building; loss, \$12,000. Address The Mayor.

Georgetown, S. C.—Fitzgibbon & Co.'s oak factory; damaged to extent of \$3000.

Grand Saline, Texas.—W. R. Collier's residence; loss, \$4500.

Johnston, S. C.—J. H. Johnson's planing mill and builders' supply factory; loss, \$4000.

Knoxville, Tenn.—S. B. Newman & Co.'s printing plant; loss \$8000.

Luxora, Ark.—L. B. Reeves' saw mill; loss \$2500.

Mobile, Ala.—R. P. Leahy's veneer factory and dry kiln; loss \$15,000.

New Decatur, Ala.—Cottonseed Oil Co.'s mill and cotton gin; loss \$5000.

Olympia, Ga.—West Yellow Pine Co.'s dry kilns.

Palestine, Texas.—H. M. Jones' residence; loss \$3500.

Round Rock, Texas.—J. C. Clark's cotton gin and grist mill; loss, about \$3000.

Shinnston, W. Va.—Frank Powell's barn, valued at \$8000.

Vernon, Tex.—H. D. Hockersmith's electric-light plant; loss, \$4000.

#### BUILDING NOTES.

\*Means machinery, proposals or supplies are wanted, particulars of which will be found under head of "Machinery, Proposals and Supplies Wanted."

Anderson, S. C.—School.—Grandy & Jordan, of Greenville, have contract at \$6502 for rebuilding school-house reported burned last week.

Annona, Tex.—Bank Building.—Annona National Bank, B. N. Boswell, president, will erect office building.

Asheville, N. C.—Auditorium.—J. E. Stevens has been awarded contract at \$24,902 for building auditorium previously reported.

Atlanta, Ga.—Depot.—Atlanta Terminal Co. has awarded contract for masonry work in connection with its proposed depot to Baltimore Ferro-Concrete Co., at \$70,000.

Baltimore—Machinery Warehouse.—The Carey Machinery & Supply Co., engineers and dealers in machinery and supplies of all kinds, invite proposals for the erection and lease of a warehouse for their purposes. The structure must be about 40x100 feet and located in the district bounded by German, Pratt, Hanover and South streets. Temporary offices at 119 South Fremont street.

Berkley, Va.—Church.—St. Thomas P. E. Church will erect \$16,000 edifice, 100x70 feet, after plans by A. H. Ellwood & Son, Indianapolis, Ind. E. W. Cowling, pastor.

Birmingham, Ala.—Church.—Mount Vernon Methodist Church contemplates erecting brick and stone edifice. Address The Pastor.

Birmingham, Ala.—Schools.—City will vote on issue of \$200,000 of bonds for erecting school buildings as reported last week; \$35,000 will be expended for two elementary schools and \$165,000 for high school. Julian Kendrick is city engineer; architect has not yet been selected. W. M. Drennen, Mayor.

Brownsville, Tex.—Store Building.—Chas. Lindsey is having plans prepared by W. L. Layton for two-story brick store building, 50 x 80 feet.

Charlestown, W. Va.—Hotel.—King Lumbar Co., of Winchester, Va., has contract, at \$35,000, for rebuilding Carter House, for which Thomas C. Kennedy was recently reported as having prepared the plans.

Chattanooga, Tenn.—Church.—T. S. Mondy, of Ridgedale, Tenn., has contract for erecting proposed \$16,000 temple for Mizpah congregation, previously reported.

Chattanooga, Tenn.—School Buildings.—City is having plans prepared by architect R. H. Hunt for \$40,000 high school building and by Adams & Bearden two buildings for colored schools. City was reported lately as contemplating erection of three school buildings.

Cleburne, Tex.—Church.—St. Joseph's Catholic Church will rebuild structure recently burned. Address The Pastor.

Cleburne, Tex.—First Presbyterian Church will erect \$8000 edifice. Address The Pastor.

Clinton, N. C.—Court House.—Sealed proposals will be received until April 20, by the Board of County Commissioners of Sampson county, for building county court house. Plans and specifications on file at office of architect B. F. Smith Fireproof Construction Co., Room 503 Pope Building, Washington, D. C., and office of R. A. Ingram, Register of Deeds, Clinton. Each bid must be accompanied by certified check for \$1000, made payable to Board of County Commissioners. Bond in the sum of 75 per cent. of gross amount of contract will also be required.

Columbia, S. C.—Hospital.—Columbia Hospital will erect \$5000 addition for surgical department.

Columbia, S. C.—Depot.—Seaboard Air Line Railway, J. M. Barr, general manager, Portsmouth, Va., has let contract for its proposed passenger station to cost \$30,000.

Columbus, Mo.—Church.—The Methodist congregation will erect \$45,000 edifice after plans by Matthews & Clark. Address The Pastor.

Cooper, Tex.—Business Building.—Cooper Mercantile Co. will erect brick business building.

Conroe, Tex.—College.—James Johnson, of Conroe; D. Porter, Caldwell, Tex.; W. H. Holland, Wissis, Tex.; A. M. Smith, Chapel Hill, Tex., and associates, have incorporated the Conroe-Porter Industrial College for maintaining industrial college for negroes.

Dallas, Tex.—Club.—Dallas Golf & Country Club has increased capital, as recently reported, and will erect \$10,000 building; architect not yet selected. J. T. Trezevant, president.

Dallas, Tex.—Office Building.—Sidney Relnhart will erect \$43,000 office building as recently reported; two stories, 47x90 feet. H. Overbeck is architect.

Dallas, Tex.—Business Building.—Plans and specifications are invited for remodeling and reconstructing the Heidenheimer Building. For particulars address Suderman & Dolson, 2012 Strand.

Eagle Lake, Texas.—Bank Building.—J. H. Meyer has contract, at \$8000, for erecting new National bank building.

Fayetteville, W. Va.—Jail.—Fayette County contemplates issuance of \$40,000 of bonds for erection of jail. Address William Grafton, Clerk County Court.

Fort Worth, Texas.—Store and Office Building.—V. D. Reynolds & Bro. contemplate erecting five-story store and office building, at cost of \$25,000.

Fort Worth, Tex.—Hotel.—Winfield Scott will erect modern hotel of 225 rooms, steam heat, etc. Mr. Scott will utilize a part of the old Metropolitan Hotel for the new building.

Fulton, Mo.—Hospital.—Dr. J. W. Smith, superintendent State Hospital for Insane No. 1, will open bids April 12 for erection of brick hospital building. Certified check for \$500 must accompany each bid. Plans and specifications on file at institution, also at office of M. F. Bell, architect. Usual rights reserved.

Fulton, Mo.—School Building.—N. B. McKee, superintendent State School for the Deaf, will receive sealed bids until April 7 for erecting brick school building. Certified check for \$500 must accompany each bid. Plans and specifications on file at institution, also at office of M. F. Bell, architect. Usual rights reserved.

Gadsden, Ala.—Sanitarium.—It is reported that a sanitarium will be built. R. H. Thomas is interested.

Galveston, Tex.—Hotel.—Charles Hoppe, proprietor Hotel Hoppe, has purchased site and will erect three-story brick hotel.

Galveston, Tex.—Freight Depot and Office Building.—Galveston, Houston & Henderson R. R., J. H. Hill, manager, will erect freight depot and office building, 570x50 feet, at a cost of \$70,000. Structure to be absolutely fireproof of brick and metal, concrete flooring, brick and iron framework and rolling metal doors.

Gatesville, N. C.—Court House.—D. K. Cecil & Co., of Windsor, N. C., have contract for remodeling and enlarging court house, for which bids were recently advertised in these columns.

Greensboro, N. C.—Office Building.—W. S. Thompson and Lee H. Battle have purchased site and contemplate erection of five-story office building.

Greensboro, N. C.—College.—Board of Trustees of Greensboro Female College have adopted plans of S. W. Fouk & Son, of New Castle, Pa., for college building to replace one burned recently. Cost, \$50,000.

Greenwood, Miss.—Lodge Building.—G. W. Chenoweth has been awarded contract by Greenwood Lodge B. P. O. E. for reconstruction of home.

Guthrie, O. T.—Hospital.—C. V. Patterson, of Guthrie; Dr. Harry J. Moore, of St. Louis, Mo., and others, have incorporated the Dr. Harry J. Moore Eye and Ear Institute, with \$50,000 capital.

Hannibal, Mo.—School Building.—Barnett, Haynes & Barnett have prepared plans for city's proposed high school building, to cost \$100,000. Contract will be awarded at once. Address The Mayor.

Haganville, Ga.—Court House.—Troup County will vote April 20 on issuing \$20,000 of bonds to erect court house. Address County Clerk.

Huntsville, Ala.—Apartment House.—J. H. Landman will erect apartment house.

Humboldt, Tenn.—Woodworking Factory.—Humboldt Hoop & Heading Co. will rebuild mill recently burned at a loss of \$10,000.

Huntsville, Ala.—Library.—Plans have about matured for erection of \$10,000 public library. Address Mrs. Hector D. Lane, chairman local arrangement committee.

Huntsville, Ala.—Residence.—W. E. Everett is having plans made by Cowell & Lowe for erection of \$7000 residence, 44 x 72 feet.\*

Kansas City, Mo.—Apartment House.—A syndicate will erect a \$150,000 apartment house on Independence Boulevard, after plans by Barnett, Haynes & Barnett, of Kansas City and St. Louis, Mo.

Kansas City, Mo.—Business Block.—Barnett, Haynes & Barnett, of Kansas City and St. Louis, Mo., have prepared plans for a three-story business block to be erected by the Buckley estate.

Kershaw, S. C.—School.—City has voted issue of \$10,000 for erection of school. Address The Mayor.

Kingsbury, Texas—Round House and Depot.—St. Louis, Brownsville & Mexico Railroad has awarded contract for erection of proposed 12-stall round house and depot.

Knoxville, Tenn.—Residence.—Baumann Bros. have completed plans for R. E. Oliver's residence, and contract will be awarded at once.

Lake Charles, La.—Depots.—St. Louis, Watkins & Gulf Ry., Henry B. Kane, general manager, Lake Charles, has purchased site on which to erect passenger and freight depots of brick and stone.

La Grange, Ga.—Court-house.—County Commissioners of Troup county, Georgia, will open bids April 4 for furnishing material and labor necessary for completion of new court-house at La Grange, in accordance with plans and specifications by Andrew J. Bryan & Co., New Orleans, La., which are on file in office of the board. Certified check for 10 per cent. of amount of bid must accompany each proposal. Bond required and usual rights reserved. These bids were advertised in these columns in December as to be opened January 7, but postponed.

Lexington, Miss.—School.—City will issue \$25,000 of bonds for erection of school building. Address The Mayor.

Louisville, Ky.—Warehouse.—Cumberland Telephone Co., J. C. Symmes, superintendent, will erect \$5000 warehouse.

Memphis, Tenn.—Bank Building.—Mechanics' Savings Bank & Trust Co., William M. Kennedy, president, will erect bank building.

Memphis, Tenn.—Hospital.—Plans and specifications are being prepared for proposed addition to City Hospital; to be two-story, of brick. Address Dr. Heber Jones, President Board of Health.

Memphis, Tenn.—Warehouse.—Couch Bros. & J. J. Engan Co., manufacturers of cotton collars, Atlanta, Ga., contemplate erection of warehouse in connection with their branch at Memphis.

Memphis, Tenn.—Residence.—C. W. Shulte will erect \$25,000 dwelling.

Mobile, Ala.—Apartment House.—Duggan & Taylor have had plans prepared by Stone Bros., of Mobile and New Orleans, La., for six-story brick and stone apartment house to cost \$80,000; building to have steam heat, electric lights and telephones.

Mobile, Ala.—Dwelling.—Robert E. Neville will erect two-story residence, to cost \$5,500.

Morgan, Tex.—Texas Central Railway.—C. Hamilton, general manager, Waco, Tex., will erect freight depot.

Muskogee, I. T.—School.—City has awarded contract to John Sanders, at \$23,000, for erection of school building, recently reported.

Napoleonville, La.—School Building.—Vernon Caldwell, of Abbeville, La., has received contract at \$11,778 for erection of school structure, for which bids were recently advertised in these columns.

Nashville, Tenn.—Freight Depot, etc.—Tennessee Central Railroad, G. A. Clark, general manager, will expend \$500,000 in improvements, which include erection of freight depot at cost of \$40,000, yards, addition to belt line around Nashville, etc.

Nashville, Tenn.—Apartment House.—Thompson, Gilbel & Asmus, architects, have prepared plans for \$20,000 flats building, to be erected at 142 Vine street by Mrs. Thomas Parke; building to be three stories, steam heated, gas and electric lights.

Newnan, Ga.—Auditorium.—Newnan Auditorium Co. has been incorporated, with \$6000 capital, by L. N. Orr, R. H. Hardaway, M. Salbide and others to erect auditorium.

New Orleans, La.—Hotel.—Toledano & Wogan, of New Orleans, and M. Koch & Co., of Milwaukee, Wis., have prepared plans for hotel, to be erected by Henry Greenwald, as previously reported.

Newport News, Va.—Lodge Building.—Newport News Lodge B. P. O. E. have accepted plans of J. W. Lee, Hampton, Va., for its proposed \$10,000 structure.

Norfolk, Va.—Flats Building.—Mottu, de Witt & Co. have organized the Holland Realty Co. to erect four-story brick and stone apartment house in Ghent at a cost of \$65,000.

Normal, Ala.—Building.—State Normal School will erect \$10,000 building. Address W. H. Council, president Agricultural & Mechanical College, Normal.

Norman, O. T.—Court House and Jail.—Cleveland county will rebuild court house and jail recently reported burned. Cost \$35,000. Plans, specifications and bids are advertised for. Address F. O. Miller.

Oklahoma City, O. T.—Dwelling.—F. A. Gross, president of the Gross Construction Co., La Crosse, Wis., will erect \$4000 colonial residence at 900-11 West Main street.

Oklahoma City, O. T.—Business Block.—A. F. Coffman will erect three-story brick business block, 25x100 feet.

Onley, Va.—Bank Building.—F. H. & H. R. Davis, of Baltimore, Md., have completed plans for proposed building for Farmers & Merchants Bank; building will be of brick and stone, and cost \$8000.

Orange, Va.—Bank Building.—Citizens' National Bank will erect bank building.

Paris, Tex.—Dwelling.—Mrs. R. F. Scott has had plans prepared by Barnett, Haynes & Barnett, of St. Louis, Mo., for \$75,000 residence.

Paducah, Ky.—Theatre.—L. W. Wilson, of Chicago, Ill., has contract for erecting proposed theatre of J. W. English.

Petersburg, Va.—Bank.—National Bank of Petersburg will erect \$20,000 bank building.

Pittsboro, Miss.—Bank Building.—A new bank, organized with H. T. Gaines, president, will erect building.

Portsmouth, Va.—Temple.—J. H. Brinson, of Hampton, Va., has been awarded contract at \$34,000 for erection of Masonic Temple. Plans were reported last week as being prepared by Chas. McMillan, Wilmington, N. C.

San Antonio, Tex.—Association Building.—Harvey L. Page, architect, 207 Alamo Plaza, will open bids March 31 for construction of Y. M. C. A. building. Plans and specifications on file at office of architect, Builders' Exchange, or Y. M. C. A. room. Certified check for \$500 must accompany each bid. Usual rights reserved.

San Angelo, Tex.—Store Building.—J. B.

Coleman will erect brick store building, 30x80 feet.

Savannah, Ga.—Apartment House.—Dr. M. F. Dunn contemplates the erection of apartment house at 122 East Oglethorpe avenue, Shreveport, La.—Temple.—Orthodox Hebrew congregation is having plans prepared for \$15,000 synagogue.

Sonora, Tex.—School Building.—Contract will be let April 15 for six-room stone school building. Plans and specifications on file at office of James Wahrenberger, architect, San Antonio, Tex. For further particulars address E. S. Bryant, secretary, Sonora.

St. Augustine, Fla.—Hotel.—St. George Hotel will enlarge hotel by addition of thirty rooms.

St. Augustine, Fla.—Hotel.—Magnolia Hotel will build an addition of sixty rooms.

St. Louis, Mo.—Association Building.—Young Men's Hebrew Association is having plans prepared for erection of building.

St. Louis, Mo.—Hotel.—Parkview Realty Co. has had plans prepared by Architect W. Albert Swasey for 2000-room hotel. Electric lights will be installed.

Temple, Tex.—Parsonage.—Stewards of the First Methodist Church are having plans prepared for \$5000 parsonage.

Terrell, Texas—Lodge Building.—Terrell Lodge, B. P. O. E. No. 472, will erect building, as recently reported. Structure will be 50x90 feet and cost \$10,000. Jas. Muckleroy, chairman building committee, and C. A. Gill & Son, of Dallas, Texas, architects.\*

Tupelo, Miss.—Court House.—Lewman & Co., Louisville, Ky., have received contract at \$51,300 for Lee county's proposed court house.

Union City, Tenn.—Opera House.—Chartered: Union City Opera House Co., with \$5000 capital, by J. C. Reynolds, T. M. Pierce, George Dahnke and others.

Union Springs, Ala.—School.—City has let contract for \$30,000 school building. Address The Mayor.

Waco, Tex.—Temple.—Contract to erect Masonic temple has been awarded to General Supply & Construction Co., of Fort Worth, Ark., and New York City, at \$93,971. Building to be four-story, of stone and brick. J. E. Flanders, of Dallas, Tex., architect.

Washington, D. C.—Residences.—David Moore will erect five two-story brick dwellings, to cost \$20,000, and five to cost \$22,000.

Washington, D. C.—Engine-house.—Sealed proposals will be received by Henry B. F. MacFarland, Henry L. West and John Bidle, commissioners, Washington, D. C., until March 19 for constructing engine-house, No. 13, corner Tenth and G streets S. W. Forms, specifications and all necessary information can be had at office of commissioners.

Washington, D. C.—School.—Isador Pavarini, 814-18 Eighteenth street, N. W., has contract, at \$160,000, for erection of proposed high-school building. Will be three stories, 150x200 feet.\*

Washington, D. C.—Residences.—Louis H. Meyers and Thomas Wonderly will erect fourteen dwellings at a cost of \$100,000.

Washington, D. C.—Dwelling.—E. Scott Douglass, of Douglass & Douglass, will erect three-story 14-room residence, to cost \$15,000.

Washington, D. C.—Dwelling.—Franklin T. Sanner will erect \$10,000 residence.

Wheeling, W. Va.—Flats Building.—Herman Schwicker has had plans prepared by Asie M. Fair for the erection of modern flat building.

Williamstown, S. C.—School.—City will vote February 26 on issuance of \$8000 of bonds for erecting modern school building. Address The Mayor.

Wilson, N. C.—Warehouse.—Jas. E. Wilkins has contract to rebuild warehouse for Cooper & Watson, recently burned. Building to be of brick and cost \$13,000.

Wilson, N. C.—Warehouse.—Cogart, Eagles & Carr have let contract to Jas. E. Wilkins for rebuilding warehouse lately reported. Cost \$15,000.

Winston-Salem, N. C.—School.—City has issued \$15,000 of bonds for erection of proposed school building. Address The Mayor.

Wrightsville, Ga.—Bank.—Citizens Bank is erecting \$5000 bank building.

Wrightsville, Ga.—Warehouse, etc.—J. E. Linder will erect brick building, also cotton warehouse.

Wrightsville, Ga.—Store Buildings.—Elmer E. Daley has let contract for four brick store buildings.

Wrightsville, Ga.—Business Building.—Tompkins & Johnson will erect two-story brick building, to cost \$7000.

## RAILROAD CONSTRUCTION.

### Railways.

Anderson, S. C.—It is rumored that an electric railway may be built from Anderson to Atlanta, Ga., by Ohio capitalists. This rumor is yet unconfirmed, but D. M. Stewart, of Xenia, is among those interested, with Dr. George E. Coughlin, S. H. Knight and S. S. Rhodes, of Indianapolis, Ind., in the plan to build an electric railway from Anderson to Greenville, S. C.

Anstead, W. Va.—Mr. William N. Page, chief engineer of the Deepwater Railway, writes the Manufacturers' Record that the company has adopted and is now locating, upon the ground, a branch line from Blue-stone river, at the mouth of Widemouth creek across to East river, where it will connect with the Tidewater Railway of Virginia, which is to extend from that point to Hampton Roads, or some other point near Norfolk, Va.

Ashland, Ala.—Mr. Bennett W. Pruet, secretary of the Alabama Northern Railway, writes that the line will be seven miles long and will connect Ashland with Pyriton, Ala. George Giles, of St. Louis, made the preliminary survey, but another engineer will locate the line. Within 30 days bids for construction and equipment will be received.

Asheville, N. C.—Mr. S. F. Chapman, manager for J. S. Bailey & Co., writes the Manufacturers' Record that the Bee Tree Railroad Co. has been incorporated to build a line eight miles long from Iron Ore Cut, on the Southern Railway, to Craggy Mountain. Bids will be requested in about a week. John J. Dalton is engineer in charge.

Attalla, Ala.—Work is being pushed on the Louisville & Nashville extension which is to connect Attalla and Altona, the tunnel work being the most difficult part of the line, which is to be completed this spring.

Atlanta, Ga.—J. J. Spalding and Forrest Adair, representing the Atlanta Water & Electric Power Co. and allied interests, will, it is reported, apply to the County Commissioners next month for an electric railway franchise from Atlanta to Bullock, where the company is building a large dam across the Chattahoochee river.

Augusta, Ga.—It is reported that application will soon be made for the Augusta & Elberton Railway Co. to build a line from Augusta to Elberton, Ga., 60 miles. Those reported interested are F. T. Lockhart, C. B. Young and J. E. Hogan, of Augusta, and R. E. Ramsey, of Columbia county.

Avard, O. T.—Surveys are reported in progress for the Oklahoma City & Northwestern Railroad, to connect at Avard with the Arkansas Valley & Western (Frisco System), and to run 150 miles northwest towards Denver, Col.

Baltimore, Md.—A bill has been introduced in the Legislature to incorporate the Baltimore & Southwestern Railroad Co. to build a line from Baltimore, through Anne Arundel and Calvert counties, to Drum Point and Point Lookout, about 100 miles, to make, in connection with a steamer from the latter point, a new route to the lower Eastern Shore counties. The incorporators are Francis E. Waters, of Baltimore; John P. Moore, of Snow Hill, Md.; Robert B. Dixon, of Easton, Md.; Murry Vandiver, of Havre de Grace, Md., A. P. Gorman, Jr., of Howard county, and Samuel K. Dennis, also of Maryland, and Frank Smith, of Pennsylvania. It is said that the road will also be incorporated in Virginia to build an extension to Norfolk.

Baltimore, Md.—The Baltimore, Westminster & Union Mills Railway Co. will, it is reported, apply to the Legislature for incorporation to build a line from Mt. Washington, Md., to Westminster and Union Mills, about 30 miles. The incorporators are Walter R. Townsend and Congressman J. F. C. Talbot, of Towson, Md.; Joseph Friedenwald, W. A. Jackson, N. Rufus Gill and Nelson Perin, of Baltimore; Charles E. Fink, W. S. Preston, C. A. Councilman, B. Frank Crouse and Dr. Frank T. Shaw, of Westminster.

Baltimore, Md.—A bill has been introduced in the Legislature providing that Anne Arundel county may issue \$200,000 of bonds to aid the Baltimore & Southern Railroad, a project which has lain dormant for some years. Frank R. Biedler is interested.

Baltimore, Md.—Ex-Governor Frank Brown will, it is reported, present a bill to the Legislature for incorporating the

Sykesville & Springfield Railway & Water Co., to build an electric railway from Sykesville, Md., to the Springfield Hospital, one mile.

Bel Air, Md.—A bill has been introduced in the Legislature to incorporate the Stewartstown & Susquehanna Railway & Power Co. to build an electric railway through Harford county, starting from a point on the Susquehanna river, between the mouth of Deer Creek and the Pennsylvania State line. The incorporators are Thomas MacKenzie, H. M. Benzinger, Joseph W. Galbreath, Clarence D. Hight, Winfield S. Whiteford, Edward E. MacKenzie, Harry E. Karr and Thomas H. Robinson, of Bel Air.

Beaumont, Tex.—R. C. Duff is quoted as saying that arrangements have been made which assure the early completion of the Beaumont & Sour Lake Railroad. Rails will arrive in a few days for the track, and other rails are to be sent from Kansas City to continue the line to Batson. R. E. White is chief engineer.

Carrollton, Ala.—The Tombigbee Railroad Co. has filed incorporation papers. The line to be built is not stated. The incorporators are John T. Cochrane, of Carrollton; Wm. G. Cochrane, of Tuscaloosa; C. P. Duke, of Fairford; William C. Fitts, of Mobile, and Samuel L. Cox, of Carrollton. Mr. John T. Cochrane is president of the Carrollton Short Line Railway, which runs from Reform, on the Mobile & Ohio Railroad via Carrollton, to Aliceville, Ala., 21 miles.

Charleston, Miss.—A movement is under way to build a railroad from Charleston to Oakland, Miss.

Chicago, Ill.—The Illinois Central Railroad will, it is reported, reballast the Paducah & Cairo division, 55 miles long. A. S. Baldwin is engineer of construction at Chicago.

Chicago, Ill.—The Illinois Central Railroad will, it is reported, make extensive improvements on its Louisville division, including a number of passing tracks. A. S. Baldwin is engineer of construction.

Clipley, Fla.—Thomas Worthington, of Birmingham, Ala., has arrived here to begin work. It is reported, on the proposed Birmingham, Columbus & St. Andrews Bay Railroad.

Cincinnati, Ohio.—The Queen & Crescent Route is reported to have closed contract with Newton & Nutter, of this city, to stone ballast its line from Cincinnati to Chattanooga.

Dallas, Texas.—Concerning the report that the Texas & Pacific Railway will extend the Mineral Wells & Northwestern line to Trinidad, Col., Mr. B. S. Wathen, chief engineer, writes the Manufacturers' Record that he has no instructions relating to this road and doubts whether there will be anything done on the line during the present year.

Dallas, Texas.—Reported that the Missouri, Kansas & Texas Railway will build an extension south from Austin, about 30 miles, to connect with its line running from Smithville to San Marcos and San Antonio. J. W. Petheram is chief engineer.

Detroit, Mich.—Senator George B. Davis, of Detroit, who is interested in the Blue Grass Consolidated Traction Co. of Kentucky, is quoted as saying that the company will build lines during the coming summer to Versailles and Winchester, Ky., and that the money for them is now on hand.

Endicott, O. T.—The Denver, Endicott & Gulf Railroad will, it is reported, build an extension to connect with the Missouri Pacific Railway. E. L. Peckham is vice-president and general manager.

Frankfort, Ky.—The Frankfort & Versailles Traction Co. is reported to have filed a bond in Woodford county to guarantee the beginning of work on its railroad before July 1.

Galveston, Tex.—Mr. C. F. W. Felt, chief engineer Gulf, Colorado & Santa Fé Railway, writes the Manufacturers' Record saying: "Our road does not contemplate constructing a line into Waco." This denies the press report that such an entrance was proposed.

Greenville, S. C.—Mr. H. H. Prince writes the Manufacturers' Record that at present he expects to build a railroad 21 miles long to a mountain resort and timber land. He also contemplates building a much longer line.

Guthrie, O. T.—Construction work is reported begun in Comanche county and at Portland, on the proposed Colorado, Oklahoma & Texas Railroad, which is to run from Denison, Tex., to Pueblo, Col.

Houston, Tex.—Reported that the Texas & New Orleans Railroad (Southern Pacific System) will build a branch to the Saratoga Oil Fields. E. B. Cushing is engineer maintenance of way.

Jackson, Tenn.—Samuel Wallace and Rush Persons are reported to be securing rights of way for the proposed electric railway from Jackson via Dyersburg to the Mississippi river.

Lexington, Ky.—Mr. J. R. Barr, general manager of the Lexington & Eastern Railway, writes the Manufacturers' Record pronouncing as unauthentic the press report that the company would extend its line in Breathitt county.

Little Rock, Ark.—The Searcy & Des Arc Railroad Co. has filed an amendment to its charter to build an extension from Searcy to Heber, 35 miles, and from Des Arc to the west bank of White river, near the Choctaw bridge, in Prairie county, 20 miles. J. M. Stark, chief assistant engineer Choctaw, Oklahoma & Gulf Railroad, Little Rock, may be addressed.

Live Oak, Fla.—Mr. R. N. Ellis, Jr., chief engineer of the Suwannee & San Pedro Railroad, writes the Manufacturers' Record that he has just made a preliminary survey of the extension from Perry to Springfield on the Carrabelle, Tallahassee & Georgia Railway. The length of line is 50 miles, and will pass through Taylor, Jefferson, Wakulla and Leon counties.

Longview, Tex.—Engineers are reported in the field, making surveys for a 17-mile extension of the Texas, Sabine Valley & Northwestern Railway, from Longview to Marshall, and another of 38 miles, from Timpson, to connect with the Santa Fe. G. M. D. Grigsby, of the Grigsby Construction Co., of Dallas, Tex., is president of the road.

Marion, Va.—The Glade Mountain Lumber Co. is reported to have begun construction of a railroad from Atkins up Nick's creek to timber lands.

Mexico, Mo.—The cut-off that is being built by the Burlington and the Alton from Mexico to Old Monroe is reported graded for about 32 miles.

Nashville, Tenn.—Mr. W. N. McDonald, chief engineer Tennessee Central Railroad, writes the Manufacturers' Record that no definite decision has been reached as to an extension from Emory Gap to Kingston.

Nashville, Tenn.—Mr. Hunter McDonald, chief engineer Nashville, Chattanooga & St. Louis Railway, writes the Manufacturers' Record confirming the report that the company has purchased 42 acres of land five miles north of Atlanta, Ga., on the Western & Atlantic Railroad, and says that a contract has been closed with the Southern Contracting Co. for grading a yard on the property. There will be about 125,000 cubic yards of excavation to be handled.

Nashville, Tenn.—Mr. W. N. McDonald, chief engineer Tennessee Central Railroad, writes the Manufacturers' Record denying the report that the company proposes to build a branch from Algood, via Livingston, to other Tennessee points. He says that the company has no intention of doing any such work.

Norfolk, Va.—The Seaboard Traction Co. has been chartered to build an electric railway from Richmond to Portsmouth, about 80 miles, and also with branches through its principal truck-farming and peanut-growing sections of the State. The main line is to run from Portsmouth to Petersburg, and thence via Manchester to Richmond. The branch lines may not be more than 50 miles long each. The incorporators are President, Luther R. Britt; first vice-president, W. H. Robinson, of Suffolk; second vice-president, George L. Barton, of Suffolk; treasurer, W. D. Southall; general manager, George H. Lewis, Norfolk; secretary and auditor, Lee Britt, Suffolk; directors, W. H. Robinson, G. H. Lewis, W. D. Southall, L. R. Britt, Norfolk; Dudley Britt, Clarkburg, W. Va.; Lee Britt, George L. Barton, Suffolk.

Norfolk, Va.—Aaron Milhado and others are reported working on the plan to build an electric railway from Norfolk to points in Princess Anne county.

Norfolk, Va.—F. L. Nicholson, chief engineer of the Norfolk & Southern Railroad, is reported as saying that Jones, Luck & Co., of Roanoke, Va., have been awarded the contract for and have begun grading on the extension from Mackey's Ferry to Plymouth, N. C., 10 miles.

Oakland, Miss.—The Oakland, Charleston & Western Railroad has been incorporated to build a line from Oakland to Charleston, about 10 miles. The incorporators are W. T. Lambert, J. W. Saunders and Joseph Larimer.

Pearson, St. Mary's Co., Md.—A bill has been introduced in the Legislature to incorporate the Pearson & Baltimore Railroad Co., to build a line of railway from Baltimore through Anne Arundel, Calvert, Charles and St. Mary's counties. The incorporators are Charles H. Pearson, of Pearson, Md.; Charles L. Applegarth, Stanley A. Foutz, Harry B. Pearson, William W. Sunderland, William F. McGee and Thomas N. Dell, all of Baltimore City.

Pittsburg, Pa.—Mr. J. M. Schoonmaker, vice-president and general manager of the Pittsburg & Lake Erie Railway, is reported as saying that the Meadow River Railroad, recently incorporated in West Virginia, to build from Ronceverte on the Chesapeake & Ohio Railway to Richwood on the Baltimore & Ohio, will form part of a through line to be composed of the Wheeling & Lake Erie and the Baltimore & Ohio Railroad, running from Pittsburg down through timber and coal regions in West Virginia to the Chesapeake & Ohio Railway. Connection between the Pittsburg & Lake Erie and the B. & O will be made at Connellsville, Pa.

Quitman, Miss.—The Mississippi & Eastern Railroad, which has been chartered, has it is reported organized by electing the following directors: Perley Lowe, president; C. P. Miller, vice-president; William Templeton, secretary; C. F. Thompson, treasurer; A. C. Schryver, G. H. Deeves and S. H. Terral. The plan is to build a line from Quitman, Miss., southeast through Clarke county and thence into Choctaw county, Ala., to a point on the Tombigbee river, but the line may be extended through Clarke and Washington county, Ala., to a point on the Southern Railway.

Roanoke, Va.—The Norfolk & Western Railway, it is said, is considering a plan to build an extension which will enable it to reach Washington, D. C., either directly or by a connection and traffic arrangement with another road. C. S. Churchill is chief engineer.

Roanoke, Va.—It is reported that construction has begun on the Catawba Valley Railroad, an electric line projected to run from Roanoke through the Catawba Valley to New Castle on the Chesapeake & Ohio Railway. Louis Scholz and Henry Scholz are interested.

Robson, W. Va.—The Cecil & Aster Railroad Co., of Grafton, W. Va., has been incorporated, with \$50,000 capital. The incorporators are W. J. Roderick, T. P. Mills and C. A. Young of Robson, W. Va.; W. T. Gates, of Aster, W. Va., and W. J. Elgin, of Kanawha Falls, W. Va.

Savannah, Ga.—Mr. Henry M. Steele, chief engineer of the Central of Georgia Railway, denies the press report that it may build a connecting line between Greenville and Newnan, Ga. He says there is no truth in it.

Shreveport, La.—Construction is reported begun on the New Orleans end of the Louisiana Railway & Navigation Co.'s line. W. E. Hawley is chief engineer.

Sour Lake, Tex.—E. E. Carpenter, of Canton, S. D., is reported as saying that the proposed railroad to be built from Winnie on the Gulf & Interstate to Sour Lake and thence to Lufkin, will be an independent line, to be known as the Interstate Railroad of Texas, and that the others interested are J. M. Carpenter, of Sour Lake, and Captain Rogers, of Kansas City. Also that C. A. Titus, of Ottawa, Kans., has located the line from Winnie as far as Nome, and that the entire road from Winnie to Sour Lake, 22 miles, will soon be surveyed.

Stillmore, Ga.—A charter has been granted to the Garbutt & Donovan Railroad Co. to build a line 16 miles long from a point on the Millen & Southwestern Railway to Lyons on the Seaboard Air Line. R. M. Garbutt and W. O. Donovan are among the incorporators.

St. Augustine, Fla.—The St. Augustine South Beach Railway & Bridge Co. property has been bought in by the bondholders, Conrad Decker and others, and will be extensively improved.

St. Louis, Mo.—Mr. S. B. Fisher, chief engineer Missouri, Kansas & Texas Railway, informs the Manufacturers' Record that the proposed line through Wilburton, I. T., is only an extension of one of the company's coal spurs.

St. Louis, Mo.—The St. Louis & San Francisco Railroad is reported to have let a contract to Johnson Bros. & Faugst, of Oklahoma City, O. T., to build an extension of the Guthrie Branch from Chandler to Okmulgee. I. T. J. F. Hinckley is chief engineer at St. Louis.

Summit, Miss.—A survey has been completed for the proposed electric railway

from Summit to Magnolia, Miss., about 12 miles.

Tuscaloosa, Ala.—Mayor Wm. G. Cochran, one of the incorporators, informs the Manufacturers' Record that the Tombigbee Valley Railroad was organized in Mobile, Ala., on March 5. The officers are John T. Cochran, president; William G. Cochran, vice-president and treasurer, and Charles P. Duke, secretary. Mr. J. T. Cochran is also general manager; headquarters at Fairford, Washington county, Ala. The new company has purchased the Tombigbee & Northern Railway, which runs from Nanahubba Bluffs, on the Tombigbee river, 30 miles above Mobile, and extends 50 miles northward.

Westernport, Md.—Work has begun on constructing the electric railway from Westernport to Keyser, W. Va.

Wilmington, N. C.—The Cape Fear Lumber Co. writes the Manufacturers' Record that the new railroad it was reported to be building, is simply a change of its logging road from one point to another.

Wise, Va.—Reported that work has begun on constructing an extension of the Virginia & Kentucky Railway from Ramsey, along Bear Creek and Guest river, to Norton.

#### Street Railways.

Alexandria, La.—Ira W. Sylvester and others are reported to be pushing the plan for the proposed street railway.

Baltimore, Md.—The United Railways & Electric Co. proposes to build an extension from Sparrows Point to North Point, about three miles. J. M. Hood is president.

Bessemer, Ala.—The Bessemer, Blocton & Brookwood Railway Co. has applied for a street railway franchise.

Bessemer, Ala.—The Bessemer & Jonesboro Street Railway Co. will, it is reported, apply for a franchise in Bessemer.

Bristol, Va.—Samuel M. Vance, superintendent of the Bristol Gas & Electric Co., is reported to be making estimates for the proposed electric railway at Tazewell, Va.

Camden, Ark.—The Interurban Transit Co., of Camden, has been incorporated by H. C. Homeyer, C. P. Brice, C. C. Gunnels and J. G. McDonald.

Chattanooga, Tenn.—The North Side Consolidated Railway proposes to build an extension.

Elizabeth City, N. C.—Trolley poles and wires are being put up for the proposed electric railway, in which E. L. Tunis and others are interested, and track construction is to begin as soon as weather permits.

Louisville, Ky.—The mayor has approved the ordinance granting the Louisville & Southern Indiana Traction Co. the right of way to enter the city. N. R. Niver is fiscal agent of the company.

Montgomery, Ala.—The Montgomery Street Railway has been granted a franchise to build an extension to Hendricks' Mill.

Norfolk, Va.—E. Engstrom, of Philadelphia, has arrived here to do the engineering work to complete the Bay Shore Railway.

Wheeling, W. Va.—The Wheeling & Elm Grove Railroad Co. gives notice that it will apply for a franchise on April 12. Paul O. Reymann is president.

#### MACHINERY, PROPOSALS AND SUPPLIES WANTED.

**Manufacturers and others in need of machinery of any kind are requested to consult our advertising columns, and if they cannot find just what they wish, if they will send us particulars as to the kind of machinery needed we will make their wants known free of cost, and in this way secure the attention of machinery manufacturers throughout the country. THE MANUFACTURERS' RECORD has received during the week the following particulars as to machinery that is wanted:**

Air Compressor.—See Engines, etc.

Artificial Stone.—See Concrete Stone Machinery.

Baling Press.—Catawba Cotton Mills, Newton, N. C., wants to buy a press for baling cotton waste, new or second-hand.

Boilers.—See Drilling Equipment.

Boiler.—Barataria Canning Co., Biloxi, Miss., is in market for boiler 16 feet long, 5 feet in diameter and 44 4-inch tubes, working pressure of 120 pounds.

Boiler.—See Saw Mill.

Boilers.—See Engines, etc.

Boilers.—See Building Material.

Boiler Specialties, etc.—Board of Public Works, John T. Ahearn, Supt., will receive bids until March 19 for furnishing f. o. b. cars, Nashville, Tenn., one 300 H.-P. Otis tubular feed water heater and purifier, the inlet and outlet to be tapped for 2½-inch pipe. Usual rights reserved. Address all bids to Board of Public Works, and mark on envelope, "Bid on boiler feed heater."

Brass-Flushing Machinery.—Edro Richardson, 316 N. Holliday street, Baltimore, Md., wants catalogues and price lists of all kinds of brass-finishing machinery.

Brick Machinery.—John G. Duncan Co., 316 Jackson street, Knoxville, Tenn., wants dealers' prices on second-hand soft mud machine; also catalogues and prices on new machines.

Building Materials.—L. D. Proffitt, Room 14, Glenn Building, Magnolia street, Spartanburg, S. C., wants catalogues from manufacturers of building materials.

Building Materials.—Frank B. Gilbreth, 612 North Calvert street, Baltimore, Md., wants catalogues of all kinds of material and supplies, etc., needed in building construction.

Building Materials.—Jas. Muckleroy, Terrell, Texas, will want prices on columns for gallery, mill work, sash, doors, etc., for lodge building.

Building Material.—Hurst & Streeter, Chesterfield, S. C., want prices on building material, including roofing, ornamental porches, stone, etc.

Building Materials.—Stanton Foundry & Machine Co., Palatka, Fla., wants prices on roofing, siding, bar iron, iron pipe, etc.

Building Material.—Isidor Pavarini, 814 18th street, N. W., Washington, D. C., wants prices on three boilers and engines, marble work, plumbing, granite stone work and terra-cotta work, galvanized iron, heating apparatus, etc., to be used in erection of school building.

Building Material.—W. E. Everett, Huntsville, Ala., wants prices on red pressed brick and one-quarter sawed oak.

Cannery.—E. M. Gray, proprietor Chocaw Nursery & Orchard Co., Durant, I. T., wants prices on equipment for canning factory.

Cannery Equipment.—Lawrenceburg Cannery Co., Lawrenceburg, Tenn., will want scalding kettles, crates and buckets for hand work, gasoline tools, fire pots for soldering purposes, etc.

Cement Factory Equipment.—Ridgemont Cement Mfg. Co., Ironville, Va., wants second-hand jaw crusher, 9x15, or larger with rotary screens; also pair of crushing rolls.

Concrete Stone Machinery.—Geo. C. Thompson, architect, Dublin, Ga., wants to correspond with manufacturers of machinery and supplies for concrete work and artificial stone.

Conveying Machinery.—See Engines, etc.

Cotton Compress.—See Baling Press.

Cranes.—R. P. Johnston, Capt. Engineers, Post Office Building, Wilmington, N. C., wants prices on a five-ton traveling crane, operated by hand, to span a cable tank 20 feet in width and 45 feet in length. The price must be quoted on crane delivered; in case of an overhead beam or bridge traveling on elevated tracks, quote a separate price for the elevated tracks and the posts supporting the same. The crane, etc., should be of such height that the bottom of the hook from which the weight is suspended can be readily raised nine feet above the edge of the tank. In other words, the crane must be capable of readily lifting, clear of the tank, a weight which, together with its sling, occupies nine feet of head room. Quotation and full description are now desired to assist Capt. Johnston in preparing estimate and specifications.

Creosote Plant.—See Turpentine Outfit.

Creosoting.—Dozier Lumber Co., 807 Title Guarantee Building, Birmingham, Ala., wants to have a lot of yellow pine 1½x6x14 feet creosoted, 12-lb treatment. Southern plant preferred.

Crushing Equipment.—See Cement Factory Equipment.

Decorticating.—See Fibre Machinery.

**Drilling Equipment.**—Gaffney Lime Co., Gaffney, S. C., wants boilers, steam hoisting equipment, drills, etc.

**Drilling Equipment.**—Arcadia Gas & Oil Co., Arcadia, O. T., may need drilling machines.

**Electric-lighting Equipment.**—See Engine and Boiler.

**Electric-light Plant.**—Bids will be received until April 1 for erecting electric plant with capacity of 500 or 600 16-c. p. incandescent lights, operated by steam. J. W. Provine, Mayor, Clinton, Miss.; Prof. Campbell, University of Mississippi, University, Miss., consulting engineer.

**Electric Plant.**—M. Solmson & Co., 1616 West North avenue, Baltimore, Md., are in the market for electric plant.

**Electrical Machinery.**—A. G. Nagel, 644 Fourth street, Louisville, Ky., wants prices on electric motors, two to three horse-power.

**Elevator.**—A. W. Harrison, 112 Alsquith street, Baltimore, Md., wants prices on power elevator.

**Engine.**—Cypress Lumber Co., 153 Milk street, Boston, Mass., is in market for second-hand gasoline engine of 4 or 5 H. P.

**Engine.**—See Saw Mill.

**Engines.**—See Building Material.

**Engine.**—M. Solmson & Co., 1616 West North avenue, Baltimore, Md., are in the market for 50 horse-power steam engine.

**Engines, etc.**—Meridian Fertilizer Co., Meridian, Miss., wants prices on boilers, engines, air compressor, sheet lead, rock crusher, conveying machinery, etc.

**Engine and Boiler.**—Nelson-Bethel Clothing Co., Louvaville, Ky., is in need of second-hand engine and boiler of 50 H. P., constructed so as to use the exhaust for heating building; also need generator for lighting purposes and to furnish current for air motor of 20 H. P.; dynamo to be as large as 50 H. P. engine can accommodate.

**Engine and Boiler.**—A. W. Harrison, 112 Alsquith street, Baltimore, Md., wants prices on 100 horse-power boiler, 50 horse-power engine, and on power elevator.

**Engines.**—John H. Murphy, 633 Magazine street, New Orleans, La., wants to obtain the agency for a low-priced stationary engine.

**Excelsior Machinery.**—E. J. Dantzler, Bowman, S. C., wants to buy machine for cutting excelsior or packing.

**Excelsior Machinery.**—Robert P. Hunter, Climax Feed Mills, Alexandria, La., wants to correspond with manufacturers of excelsior machinery.

**Fire Department Equipment.**—City of Cordele, Ga., will receive bids until April 1 on hose-wagon and supply of hose for fire department. R. L. Wilson, Mayor.

**Fibre Machinery.**—F. E. Timmons, 202 Park avenue, W. Savannah, Ga., wants to correspond with manufacturers of machinery for converting palm roots into fibre.

**Heating Apparatus.**—See Building Material.

**Heating Plant.**—See Engine and Boiler.

**Hydraulic Lifts.**—James Knox Taylor, supervising architect, Treasury Department, Washington, D. C., will open bids March 23 for installation of two hydraulic lifts in U. S. Post Office at Butte, Mont., in accordance with specifications, copies of which may be had at office of supervising architect or office of superintendent at Butte.

**Ice Cream Machines.**—A. G. Nagel, 644 Fourth street, Louisville, Ky., wants prices on ice cream machines.

**Irrigation Plant.**—Brownsville Land & Town Co., Brownsville, Tex., wants specifications and prices on complete irrigation plant. Address A. D. Childress, general manager.

**Hoisting Equipment.**—See Drilling Equipment.

**Hypsometers.**—Boston Printing Press Mfg. Co., 178 Federal street, Boston, Mass., wants addresses of manufacturers of hypsometers.

**Locomotive.**—R. K. Papin, 402 North Fourth street, St. Louis, Mo., wants to buy for cash shay geared locomotive, either standard or narrow gauge, for logging road.

**Lumber.**—Hartford Mill Co., Hartford, Ky., wants prices on door, sash, etc., pine lumber, ing and polishing equipment.

**Piping.**—Board of Water Commissioners, Norfolk, Va., will open bids April 8 for furnishing and laying 30-inch pipe line. Materials to include cast-iron piping, gate valves, special castings, etc. A \$7000 certified check will be required with each bid for furnishing pipe and specials; one of

\$3000 for laying pipe, and of \$10,000 for supplying and laying. After March 18 specifications, approximate schedules, forms for bidders and other data can be obtained at the office of City Engineer, W. T. Brooke.

**Pipe.**—Ornamental Pipe & Wire Co., Ports mouth, Va., wants  $\frac{3}{4}$ -inch, 1-inch,  $1\frac{1}{2}$ -inch second-hand pipe.

**Pipe.**—See Building Materials.

**Piano Manufacturers.**—Louis Breitenmoser-Violin-Piano Co., Limited, Louis Breitenmoser, president, Napoleonville, La., wants to correspond with manufacturers of pianos, organs or string instruments relative to having a patent violin-piano manufactured.

**Pumps.**—See Oil Tanks.

**Printing Press Hypsometers.**—See Hypsometers.

**Quarrying Equipment.**—E. J. Elder, R. F. D. No. 1, Able, Ala., wants prices on steam drills to drill hard rock.

**Quarrying Equipment.**—J. B. McClary & Co., 229-230 First National Bank Building Birmingham, Ala., want to buy outfit for opening marble quarry, including chancal.

**Railway Equipment.**—See Locomotive.

**Rock Crusher.**—See Engines, etc.

**Sewers.**—See Street Paving.

**Sewerage.**—See Water Works.

**Starch Machinery.**—C. L. Vickers, Room 3 Cotton Exchange Building, Houston, Tex., wants addresses of manufacturers of starch machinery.

**Saw Mill.**—Rhyne Bros., Jasper, Ga., are in market for 15 H.-P. portable engine and boiler and medium size saw mill.

**Scale Manufacturers.**—C. E. Rhyne, Gastonia, N. C., wants to correspond with parties manufacturing a computing scale.

**Stand Pipe.**—John D. Kelley, City Secretary, will receive sealed bids until April 1 for repairing standpipe at the Galveston City Water Works, Galveston, Tex. Each bid must be accompanied by certified check for \$150, and the usual bond will be required from the contractor. For further particulars address City Secretary.

**Stone-Crushing Plant.**—O. R. Whiting, 39 Cortlandt street, New York, N. Y., wants stone-crushing plant, complete with engines, boilers, pumps, etc., suitable to crush from 300 to 500 tons in 10 hours.

**Street Improvements.**—Sealed proposals will be received by Finance and Street Committees, Augusta, Ga., until April 12 for furnishing all material and labor, and resurfacing Broad street from Fifth to Twelfth streets, with either asphalt, brick, small Belgian block or bituminous macadam; surface to be covered is approximately 50,000 square yards. Material to be selected by city after bids are opened. Specifications can be had at office of Nisbet Wingfield, City Engineer. Certified check for \$2000 must accompany each bid. Usual rights reserved.

**Street Paving.**—C. Lawrence Lavretta, President Board of Public Works, Mobile, Ala., will open bids April 20 for furnishing material and constructing 25,500 lin. feet of pipe sewers, 10 inches house connections; 30,000 lin. feet of pipe sewers, six inches house connections; catch basins, paving certain streets with 31,600 square yards of asphalt, 52,000 square yards of vitrified brick, etc., 11,000 square yards of rectangular-treated wooden blocks, etc. Work will be let in five separate contracts. Copies of specifications, engineer's estimates of quantities, blank forms, etc., will be mailed upon request. Proposals, etc., are on file with J. N. Hazlehurst, chief engineer, Municipal Building, Mobile.

**Talc.**—See Tripoli.

**Tanks.**—Clem Oil Co., Dallas, Tex., wants prices on oil tanks, pumps, cans, etc.

**Tripoli.**—John N. Adams, 16 East Eighth street, Chattanooga, Tenn., wants names of users of and brokers in tripoli and talc in all its many and various manufactured forms, as well as in the crude state.

**Turpentine Outfit.**—A. H. Williams & Co., Lake City, S. C., want to correspond with parties manufacturing outfit to make turpentine out of light wood, also the tar and creosote.

**Water Works.**—Sealed proposals will be received until March 31 by J. B. Steele, chairman, Commissioners of Public Works, Georgetown, S. C., for furnishing materials and constructing system of water works, embracing nine miles of pipe, stand-pipe and other appurtenances, also for furnishing materials and constructing sewerage system, embracing approximately five miles of pipe sewers from eight to fifteen inches in diameter; cost \$75,000. Plans and specifications on file at office of chairman, also

at office of J. L. Ludlow, engineer, Winston, N. C. Usual rights reserved.

**Water Works.**—W. D. Anderson, Mayor, and C. W. Troy, City Clerk, will open bids March 28 for constructing water works and sewers at Tupelo, Miss., comprising approximately 658 tons cast-iron pipe and specials, 68 fire hydrants and 40 valves, 100,000-gallon steel tank on 80-foot steel tower; laying  $6\frac{1}{2}$  miles water mains, constructing  $6\frac{1}{2}$  miles house sewers. Particulars, blank forms and specifications can be had at office of Kirkpatrick & Johnson, engineers, Jackson, Miss. Usual rights reserved.

**Water Works.**—A. P. Fuquay, Mayor, Alexander City, Ala., will open bids April 6 for furnishing material and constructing system of water works, consisting of 50,000-gallon tank and power, two 500,000-gallon pumps, air compressor, two 48-inchx12 ft. boilers, three miles of pipe, 37 fire hydrants, gate valves, power house, reservoir, etc. Certified check for 5 per cent. of amount of bid must accompany each proposal. Usual rights reserved. Plans and specifications on file at Mayor's office. Specifications can be had on application to T. S. Moore, Atlanta, Ga.

**Wood-working Machinery.**—M. Solmson & Co., 1616 West North avenue, Baltimore, Md., are in the market for complete outfit of wood-working machines for fly screens, weather strips and mouldings.

## MEXICO.

**Bridge.**—The State of Mexico will construct an iron bridge across the Canal del Desque to the town of San Joaquin, to have roadway for vehicles and for pedes trians. Address Senor General Jose Villegas Villada, Toluca, Mexico.

**Carriage Factory.**—It is proposed to build a large factory for the manufacture of carriages at Monterey, N. L. For information address Gen. Don Bernardo Reyes.

**Cotton Manufacturing.**—Compania Industrial de Orizaba, Orizaba City, V. C., has appropriated \$250,000 for the purchase of new additional machinery during the coming year.

**Electric Lighting.**—The plans of Messrs Egarte & Garcia, of Colima City, Colima, for lighting that city have been submitted to the city government and referred to the Governor for approval.

**Electric-light Plant.**—The City of Tacatlan, Jalisco, is preparing to present to the State government for approval, a contract with an American company for the installation of an electric-light plant. Address Senor Coronel Don Miguel Ahumada, Guadalupe, Jalisco.

**Electric-light Plant.**—The State of Chihuahua has granted concession to an American company for the erection of an electric-light plant. Address Senor Don Enrique O. de la Madrid, Colima, Colo.

**Electric Railway.**—The long-talked-of electric railroad for street car purposes, in Puebla, is likely to be an accomplished fact within the next few weeks. Negotiations between an English company and the State Government are now pending. Address Senor Coronel Don Enrique O. de la Madrid, Colima, Colo.

**Electric Railway.**—An American company contemplates purchasing the concession for the street cars of Hermosillo for the sum of \$2,000,000 gold. This company intends to use electricity as motive power and to extend the line to Villa de Seris and other towns in the vicinity of the state capital. Address Senor Don Rafael Izabel, Hermosillo, Sonora.

**Gas Engine Works.**—H. C. Weber, of the Weber Gasoline Engine Co., of Kansas City, Mo., is investigating the nature and quality of Mexican crude oil, with a view of manufacturing engines especially adapted to using that oil. The erection of engine works is contemplated in that connection.

**Fortifications.**—It is rumored that the Port of Mazatlán will be strongly fortified, the chief features to be similar to those of St. Rooyroy, France. To investigate the rumor address Senor Don Enrique O. de la Madrid, Colima, State of Colima.

**Hospital.**—The State of Tamaulipas has appropriated \$50,000 for the construction of a hospital and the installation of a telephone system. For information address Senor Don Pedro Arguello, Ciudad Victoria, Tamaulipas.

**Telephone System.**—See Hospital.

**Mining.**—A company has been organized to develop mining properties in the State of Sonora. Address G. E. Whitlock, Laredo, Kansas, president of company.

**Mining.**—Bernabe Somera, of Guanacevi,

has sold his mining properties to American capitalists for \$5000. The purchasers will undertake more extensive developments.

**Mining Equipment.**—United Mining & Development Co. will place contracts for machine tools, air compressors and other equipment needed in mining operations in the State of Queretaro. These contracts will be awarded through the E. G. Spilsbury Engineering Co., Broadway, New York City.

**Mining Plant.**—New York and London capitalists are negotiating for the Santa Clara and El Moro Mining Co.'s properties near Etzatlan, Jalisco, and if they purchase will build a 50-ton ore-milling plant.

**Mining.**—Velardena Mines, in the State of Durango, will be equipped with new modern machinery. Address the American-Mexican Mining & Development Co., W. S. Phillips, President, Chicago, Ill.

**Municipal Buildings.**—The city of Torreon is negotiating a loan of \$200,000 for the construction of a market place, four school buildings and a municipal palace.

Address Senor Lic. Don Juan Marina, Durango, Dur.

**Penitentiary.**—The State of Yucatan has closed contract with Salvador Exchagarny, engineer, to complete penitentiary for \$200,000. Address the engineer at Merida, Yucatan.

**Quarries.**—Brasbin & Davis, 232 Avenida Juarez, City of Mexico, have contract to supply the city government with all rock needed for paving or construction purposes. They have opened quarries, and contemplate buying a motor car, to be operated by gasoline, or an electric storage battery for hauling purposes.

**Railway Equipment.**—It is reported that the Chihuahua & Pacific Railroad Co. is in the market for steel rails and fastenings, switches, switch-stands and props, structural steel for bridges, iron piping for culverts, telegraph wiring, etc. Address company at Chihuahua, Chi.

**Schools.**—The State of Chihuahua has decided to establish 25 schools for boys and girls. Address General Don Luis Terrazas, Chihuahua, Chi.

**Soup Manufacturing.**—Carlos San aux and Arturo Echanove, Merida, Yucatan, will purchase equipment for and install a plant to manufacture soap, stearine, candles and cottonseed oil.

**Cotton Oil Mill.**—See Soap Manufacturing.

**Sugar Mills.**—Mexican Tropical Planters Co., main offices in Boston, Mass., will remodel its 300-ton sugar house on the Isthmus of Tehuantepec. It also intends to purchase a modern six-roller mill, cube sugar machine, boilers, bagasse burners, cane holts, electric-light plant, and other machinery accompanying sugar mills. Louis Kuuz, of the Boston offices, can be addressed.

**Electric Light Plant.**—See Sugar Mills.

**Telegraph Wiring.**—See Railway Equipment.

**Wagon Works.**—Colorado capitalists con template building at Hermosillo a plant for manufacturing modern American wagons and carriages. Information can probab'y be obtained from Senor Don Rafael Izabel, Hermosillo, Sonora.

**Water-power-electrical Plant.**—The Federal Government has granted a concession to Senor Don Luis Fernando Castillo to utilize the Tlatahuqui Falls for the development of water-power and the transmission of power by electricity. It is estimated that 35,000 horse-power can be obtained. The falls are in the State of Puebla. Senor Castillo's exact address is not stated by the Manufacturers' Record correspondent, but probably he is at the City of Mexico.

**Water-power Developments.**—Lic. Joaquin D. Casasus, City of Mexico, has obtained concession to utilize the waterfall of the Alaseca river for water-power purposes. The fall furnishes 1500 litres of water per second.

## Railways.

**Steam Railroad.**—The railroad, for which a concession has been granted to Joseph Arce, to connect El Oro with Angangaco, will now be commenced and the work pushed. Address J. H. Cain, chief engineer of the new railroad, El Oro, Mexico.

**Steam Railroad.**—The International Railroad Co. of Mexico, intends to construct a line connecting Barroteran and Santa Rosa, in the State of Coahuila, the new line to be extended at a later date to the Muxquiz mining district. The Monterrey Steel & Iron Works, of Monterrey, Mexico, is interested in the proposed new railway. Ad-

dress International Railroad Co., Monterey, Mexico.

**Steam Railroad.**—P. Ruiz and M. Guevara have been granted a concession for the construction of a narrow-gauge railroad from the Santecopamapa Bay to Colera, in the Canton de Tuxtla, State of Vera Cruz. The road will be extended later to San Andres, Tuxtla. Address Señor Don Teodoro A. Dehesa, Jalapa, Vera Cruz.

**Steam Railroad.**—The Jimuleo Mining Co. has obtained a concession from the Coahuila State Government for the construction of a narrow-gauge railroad from their mines to the hacienda. Address the Jimuleo Mining Co., Coahuila, or Co. O. S. Newell, San Antonio, Tex.

**Steam Railroad.**—The Maryland Trust Co., of Baltimore, Md., Allan McLane, receiver, has been authorized by the court to issue \$2,000,000 of receiver certificates, to complete and improve the line of the Vera Cruz & Pacific Railroad, of which R. B. Pegrann is president and general manager, at Orizaba, Vera Cruz, Mexico.

**Steam Railroad.**—The new railroad which will connect Alamos in the State of Sonora with the port of Tavora on the Pacific coast, will be commenced next month. Address Governor Don Rafael Izabel, Hermosillo, Sonora.

**Steam Railroad.**—The Chihuahua & Pacific Railroad has obtained a concession to extend its line to a port on the Pacific coast. Address the Chihuahua & Pacific Railroad Co., Chihuahua.

## INDUSTRIAL NEWS OF INTEREST.

### Alabama Marble Lands.

J. B. McClary, First National Bank Building, Birmingham, Ala., wants to sell two hundred and fifty acres of marble lands in Talladega county, Ala. Full details regarding the property can be obtained on application.

### Texas Ranch Lands.

A tract of over 66,000 acres of ranch lands in La Salle county, Texas, is offered for sale. The property is fenced and cross-fenced, has grass and water, and is an ideal sheep ranch. For particulars address C. D. Warren, Houston, Texas.

### Manganese for Sale.

Manufacturers or investors looking for manganese properties are advised that a 300-acre tract of manganese at Elkton, Va., is for sale. Prior to April, 1903, the land was being developed. Address Rev. A. L. Harnsberger, Port Republic, Va.

### Cotton Mill for Sale.

A cotton mill located on the Augusta canal is offered for sale by Messrs. Maryin & Bro., Augusta, Ga. The plant could be utilized to advantage for some other industry. The city furnishes power at \$5.50 per horse-power per annum to manufacturers.

### Steam Specialty Salesmen Wanted.

Salesmen are wanted in every manufacturing city to represent the maker of a steam specialty. The article economizes fuel, and men who are acquainted with the operators of power plants are invited to investigate. Address U. S. King, 322 Elysian avenue, Pittsburgh, Pa.

### The Supply Company.

One of the youngest organizations of its kind, yet one of the most active and successful, is the Supply Co. of New Orleans. It is managed by men of energy, ability and experience, and has formed valuable connections in the railway, mill and building supply trades.

### A Georgia Cotton Mill.

On April 12 the two cotton manufacturing plants of the Athens Mfg. Co., of Athens, Ga., will be offered for sale at public outcry. The mills are well equipped and have railroad and river shipping facilities. Water power is used. For details address the receivers, Messrs. A. L. Hull and T. P. Vincent.

### Lumber Plant for Sale.

Lumber manufacturers likely to be interested in the purchase of a complete saw mill plant of 20,000 feet of lumber capacity per day are invited to address the Wando Lumber Co., Charleston, S. C. That company offers for sale a circular mill, together with timber carts, log trucks, draught animals, etc.

**Steam Railroad.**—The Government of the State of Guanajuato has approved of the construction of a railroad from San Francisco del Rincón to La Purísima, and \$15,000 have been subscribed toward construction expenses. Address Señor Joaquín Obregón González, Guanajuato, Mexico.

**Steam Railroad.**—Gen. Rodolfo G. Canton, president of the Merida & Petén Railway Co., has been granted a concession to build a branch from Merida to Icabo, 35 miles; headquarters in Merida.

**Steam Railroad.**—The Chihuahua & Pacific Railroad has obtained an extension of three years to complete the construction work now on hand. Further announcement is made that the company will build a new line from El Carpito, in the State of Chihuahua, down the valley of the Paphigochic river to the town of Temosachic, 86 kilometers.

**Steam Railroad.**—The Mexican Central Railway Co., with offices in St. Louis, Mo., and in the City of Mexico, intend building a bridge, the largest railroad bridge, it is said, in Mexico. Estimates are being received.

**Steam Railroad.**—A report from Jiminez, Chihuahua, is to the effect that Dutch and French capitalists will purchase the Hercules Iron mines and much other neighboring mining property. In this event a railroad will be constructed from Jiminez to the iron deposits, 150 miles. It is said that Henry Glinther, of the Eucinillas Mines, Ltd., Santa Rosalia, Chihuahua, is the promoter.

### Coal Ship Unloads in Record Time.

It is stated that the fastest time on record for the port of Boston in discharging 2200 tons of coal was made on February 20. The steamer Orion, of the Boston Towboat Co., held the cargo and unloaded it in seven and one-half hours. The unloading machinery used was manufactured by the Rawson & Morrison Mfg. Co., of Boston.

### Universal Caster & Foundry Co.

Because of inadequate accommodations at the old quarters, the Universal Caster & Foundry Co., of New York, has removed to the new Johnston Building, 1170 Broadway. The output of this company is well known throughout the United States, and buyers of casters and the other lines of foundry work offered are advised to note the change of address.

### Textile Machinery Sale.

Bids will be received until March 28 for all or any part of the machinery and fixtures of the Virginia Textile Co., at Lynchburg, Va. The company's plant manufactures cotton underwear, spinning its own yarns. Messrs. Tyree & Wilkins, in charge of the sale, will send a booklet of details to inquirers. Address them at 821 Main street, Lynchburg.

### Oil is "Not in It."

L. L. Tucker, of the Tucker Wood Work Co., of Sidney, Ohio, writes as follows: "I received your cup and grease all right and have put them to use. Will say that oil is not in it with your grease." He refers to Albany Grease, which has been manufactured for many years by Messrs. Adam Cook's Sons, 313 West street, New York. Write them for information about their lubricator.

### The Crown Drilling Machine.

A company has been formed to manufacture the Crown Drilling Machine. It is known as the Crown Drilling Machine Co., with offices at Akron, Ohio. Herbert W. Cole, who established the Star Drilling Machine Co. at Akron has organized the new enterprise, and his long experience in this class gives him a prestige with the trade besides ensuring the best possible designs and methods of manufacture in the works.

### Another Hartford Order.

Additional orders for the product of any manufacturer are in themselves a decided testimony to the efficiency of that product. Such a tribute to genuine merit is seen in the third order from the L. S. Starrett Co., of Athol, Mass., to the Hartford Blower Co., Hartford, Conn. The order calls for an exhaust system for removing dust from strapping belts, the equipment to consist of exhaust fan, piping, hoods, special fittings and attachments.

### William J. Beardsley, Architect.

Among the well-known Northern architects located in Baltimore to meet the demand for their services because of the recent fire is Mr. William J. Beardsley, of New York city and Troy, N. Y. Mr. Beardsley has engaged to prepare plans and specifications for a number of large structures in the burned district. He has been located temporarily in the Hotel Rennert, but permanent offices have now been secured at 28 W. Lexington street, Baltimore.

### Exhaust Heads and Oil Filters.

The well-known Burt Exhaust Heads and Cross Oil Filters continue to be in large demand among discerning users of such devices. Jones & Laughlin Steel Co., Pittsburgh, has ordered a 30-inch head; American Ship Building Co., a filter, second order; a Paris (France) company a large shipment; and a plate glass works at Alexandria, Ind., three 16-inch heads. The Burt Mfg. Co., of Akron, Ohio, manufactures the heads and filters referred to and filled the orders named.

### Paroid Roofing in Japan.

Every part of the world is appreciating the advantages of Paroid Roofing. Its manufacturers are receiving orders regularly from England, Australia, Japan, Holland and other foreign countries. Dealers in this country are also making large sales, the volume of 1903 having been double that of the previous year. Recently a large quantity of paroid was shipped for covering the buildings of the Osaka (Japan) Exposition. Messrs. F. W. Bird & Son, of East Walpole, Mass., manufacture paroid.

### Messrs. Hoyt and Mackintosh.

Messrs. John T. Noye Hoyt and Douglas Mackintosh have established at No. 11 E. Pleasant street, Baltimore, Md., an office for the practice of architecture. Mr. Hoyt's experience of fourteen years as a structural designer in New York, Philadelphia and Buffalo, and his familiarity with all classes of fireproof construction for buildings, and Mr. Mackintosh's twelve years' experience as an architectural designer, qualify them to undertake the architectural and economical design of all classes of buildings.

### Messrs. Beecher, Fritz & Gregg.

The demand for energetic and experienced architects to meet the situation in Baltimore finds its supply in many well-known established firms and in new ones being organized. A new firm is that of Messrs. Beecher, Fritz & Gregg, offices located in the old Maryland Club Building, Franklin and Cathedral streets, Baltimore. The firm is composed of W. Gordon Beecher, formerly with Parker & Thomas, of Baltimore; C. N. Fritz, formerly with Wyatt & Nolting, of Baltimore, and Charles Gregg, formerly with Hornblower & Marshall, of Washington.

### To Furnish Mahogany.

The International Mahogany Co., which owns 500,000 acres of forests in Mexico and 37,000 in Cuba, has formed a connection with the Baltimore Mahogany Co., 215 Garsuch street, by which they are prepared to furnish Baltimore with all the mahogany it may require. They have 100,000 feet in stock here now, and having mills in Long Island City, they are prepared to put 500,000 additional feet in on short notice. In addition to handling all the various tropical hard woods which their holdings contain, the firm is desirous of adding domestic woods to their stock, and is looking about for advantageous connections with owners of such woods.

### Peck-Hammond Contracts.

Southern building owners are demanding the best heating and ventilating equipments obtainable. This is instanced by the many good contracts being awarded to the Peck-Hammond Co., of Cincinnati. This company has contract for system of mechanical heating and ventilating in school building at Atlanta, 1800 cubic feet of air per minute per pupil to be furnished. It also has contract for heating apparatus in bank at Abbeville, La.; hotel at Yazoo City, Miss.; church at Anderson, S. C.; church and school at Jackson, Miss.; also at New Orleans, Sumter, S. C., and other cities.

### New Rail Mill.

The Union Rail Co.'s mill at Huntington, W. Va., is now completed. It will produce light steel rail, from 16 to 50-pound sections inclusive, daily output to be 150

tons. The mill is so constructed as to have the straightening and finishing departments keep pace with the production, thereby ensuring immediate shipment of each day's output. A. F. Baumgarten, president of the company, has embodied in the mill a number of improvements over previous mills designed and built by him. He is said to have been the pioneer in the manufacture of light steel rails.

### Gold Company Changes Address.

The Gold Car Heating & Lighting Co., New York, announces the removal of its offices to the Whitehall Building, 17 Battery Place. This company's railway car heating business has grown to such an extent that, in connection with its plan to introduce at once a system of car lighting, increased accommodations were absolutely necessary. Arrangements have been made with Thos. A. Edison and his company whereby the Gold Co. has the exclusive sale in the United States of the Edison storage battery for car lighting purposes. The Gold Chicago offices are also now consolidated with the New York offices.

### Some Wolf Machinery Sales.

Fred. W. Wolf Co., Chicago, has filled orders as follows: from Vancouver (B. C.) Ice & Cold Storage Co., 65-ton refrigerating and 15-ton ice-making plant; Jno. Hoffman Packing Co., Cincinnati, Ohio, 50-ton refrigerating; Aug. Freund, St. Joseph, Mo., 50-ton refrigerating, ice tank coils and 18-ton distilling apparatus; Adam Gintz, Belleville, Ill., 40-ton plate ice plant, including boilers; A. M. Ramer, Winona, Minn., 12-ton refrigerating plant; Merchants' Cold Storage Co., Minneapolis, 20-ton refrigerating plant, and Topeka (Kans.) Ice, Cold Storage & Fuel Co., 50-ton ice-making expansion side, with distilling apparatus. Other orders were for ammonia condensers, direct expansion, piping, etc.

### An Interesting Engine Order.

An interesting order for engines has been secured by the Davenport (Iowa) Locomotive Works, builders of light locomotives. It calls for four standard gauge switching engines, to be built complete in the Davenport shops and shipped to Cerro de Pasco, Peru, S. A. The engines will go through New York via vessel to Panama, thence across the Panama railroad to another vessel on the Pacific coast. These engines are to work 600 miles inland, at an elevation of 14,000 feet, and require large fire boxes and extra draught to furnish oxygen enough for the combustion of poor coal at such a high elevation. German, English and American makers bid on this contract. The Davenport company also has contract for 21-ton narrow gauge freight engine, to be shipped to Vera Cruz, Mexico.

### Tidewater Building Co.

Among the strong outside concerns which have arranged to bring Baltimore into touch with their wide experience, fine equipment and large resources is the Tidewater Building Co., with headquarters in New York. The founder of the company was A. Milton Napier, a graduate of the office of McKim, Mead & White, and for four years after he began on his own behalf he and his company were exclusively engaged on work for the Astor estate. The Astoria, which became a part of the Waldorf-Astoria; the Vincent, an office building at Broadway and Duane street, and a number of other imposing business houses and residence blocks were the result of these early days of activity, and so well established did the company become that operations on a broad general scale were inevitable. A Baltimore office has been opened at 227 St. Paul street, with Mr. Lionel Post in charge.

### Recent York Contracts.

Many large and important contracts have been secured recently by the York Mfg. Co., of York, Pa., manufacturer of ice-making and refrigerating machinery. They include a 65-ton refrigerating plant for Evansville (Ind.) Packing Co.; 30-ton compression side and double-pipe brine cooler for Winona (Minn.) Brewing Co.; 250-ton refrigerating and brine cooler outfit for Armour & Co., at Sioux City, this order being a duplicate of previous one; 60-ton compression side for Willow Springs Brewing Co., of Omaha; 15-ton brine plate system ice plant for Crystal Plate Ice Co., Frederick, Md.; 40-ton compression side for Crystal Ice & Storage Co., Portland, Oregon; 150-ton ice-making plant for Baltimore (Md.) Refrigerating & Heating Co. Some other good contracts were also filed.

**For Removal of Debris.**

In line with the suggestion that in order to rapidly clean out the debris in the burned district tracks should be laid in the streets and steam cars instead of mule carts used to haul out the stuff, Arthur Koppel, of New York, writes that the system of portable track and light steel cars which that house manufacturers might be used with advantage here. The Arthur Koppel railway equipment is in use, literally, in every quarter of the globe, from the Transvaal to Java, and from Syria to Peru. The portable track is mounted on steel ties, it comes all ready to be laid and ready for use, and can be put down without previous preparation of the ground. It is easily portable, so that it can be moved from one place to another as occasion requires, and at a moment's notice. Furthermore, the track, ties and everything required are kept in stock, so they could be shipped immediately, allowing work to be started without delay.

It would seem that in an emergency such as this, the suggested opportunity to secure an equipment which will admit of greatly accelerated speed in cleaning out the burned district is very well worthy of careful investigation.

**TRADE LITERATURE.****Black Squadron Ring Packing.**

A folder is being issued by the Cancos Manufacturing Co., 146 N. Second street, Philadelphia. It tells in rhyme the merits of the Black Squadron Ring Packing. It is said this packing makes engineers everywhere forget the existence of the stuffing-box. Wouldn't you like to be that forgetful? If so, write the company for details.

**Fred. J. Myers' Catalogues.**

Window guards, bank and office railings, elevator enclosures, grill work, stable fittings, fencing, builders' iron work and various other products made from iron, brass and wire, are the specialties of the old-established Fred. J. Myers Manufacturing Co., Hamilton, Ohio. The company's recent catalogues, Nos. G19 and G20, show numerous designs that will appeal to owners of buildings, builders, architects, dealers and others.

**Jones Under-Feed Stokers.**

A number of sound suggestions on smoke prevention and other desiderata in the operation of boiler plants are presented in booklets issued by the Under-Feed Stoker Co. of America, Marquette Building, Chicago. The important economical features of the Jones stokers—smoke abatement, fuel saving, low maintenance charge, increased boiler capacity—are briefly set forth in illustrated publication of the company. Power users desirous of placing the operation of their steam plants on a high plane of efficiency are invited to investigate the Jones system. Philadelphia offices at 520 Arch street.

**AGRICULTURE AND INDUSTRY.****Readjustment of Conditions Now Taking Place.**

Note can be taken at no better time than the present of the progress that is making in the great readjustment in our country of agricultural and industrial conditions. In the two decades between 1880 and 1900—to be exact, in the first 17 years of this period—the over-production here and throughout the world of all the commodities raised on farms made the lot of agriculturists hard. The price of farm products—that is to say, in the main of cotton and foodstuffs, including live stock—fell to such low figures that the farming industry became almost worthless as a source of profit, and only afforded a poor livelihood to those engaged in it. The farmers, burdened very generally by a load of debt incurred in the purchase of land at the high valuation resulting from the inflation which attended and followed the Civil War, had the land taken from them in many instances by mortgage foreclosures, and were, as a rule, forced down to a very uncomfortable state of existence. Yet all this was of immense benefit to the workers in factories, to the dwellers in cities, and in a broad sense to the country at large. It served as a

mighty stimulus to a tendency already, for other reasons, strong, that drove people from the farms to the cities, where their chief means of employment were in the workshops. It provided for all these people an abundance of cheap food; so that it was in all ways enormously encouraging to the industrial development of the land. In time, of course, the sad condition of the farmers reacted upon the cities. The trade of the cities fell off because buyers in the farming sections were few. The business life of the country was threatened by an agitation against corporate wealth begun by the agricultural population, which only represented the madness of penury and of physical and moral misery. Just at the critical pass between peace and revolution the balance which had been rising so long on one side of the economic scales began to fall; its sister balance began to rise, and the movement is still proceeding. Production of foodstuffs, of cotton and of farm products is larger than ever, but consumption, urged on by the hothouse growth of the urban population, has more than overtaken it, so that a great and substantial increase in the values of these articles has taken place. Moreover, the vast quantity of people in the cities require each year not simply a greater supply of food, but a larger expenditure for all comforts and necessities, for school-houses, hospitals, subway systems, great bridges and tunnel constructions; and this, in turn, has made taxes rise. In nine out of ten cities throughout the country to-day these taxes are increasing, rents are moving upward, and the general cost of living is greater than it ever was before; while at the same time, owing to the natural check arising upon industrial over-production, wages remain stationary and show, if anything, a tendency to decrease. It is the farmers' and planters' turn to grow rich and for manufacturing enterprises to be conducted on less favorable terms. How will it end? No such parallel hardship among industrial workers is probable as that which reached its climax among the farmers in the scenes of 1896, because there has been no such great over-production of manufactured articles as there was of farm products, and because the present high price of foodstuffs has to some extent been brought about by speculation which will, in time, subside. The lessened consumption of farm products, owing to their high cost, will also react upon those who produce these articles, as the troubles of the farmers reacted previously upon the industrial world. Two conclusions, however, seem inevitable: First, that every effort should be bent toward enlarging foreign markets for our manufactures, since with these articles, unlike farm products, save cotton, domestic consumption is less than domestic supply. Second, the obvious effort of nature at present is to force people out of the over-crowded shops and cities, and back once more to the farms, so that more intensive methods of agriculture will be practical than now prevail.—Daniel F. Kellogg, in *New York Sun*.

**TEXAS WATER-POWER.****Report for the Government Made by Professor Taylor.**

Professor T. U. Taylor, of the University of Texas, has just made a report on the "Water Supply and Water-Power of Texas" to the hydrographic division of the United States Geological Survey, according to a dispatch from Austin. The report deals with the surface water supply, and does not consider the question of underground waters, which is now under investigation and will be finished

by next January. In the water-power section the possible and actual water-powers are considered and discussed.

The report of Professor Taylor gives systematic results on the Pecos river at Pecos and High Bridge, the Brazos at Waco, the Colorado at Austin, the Rio Grande at Langtry, Devil's Run and Eagle Pass. The records on the Pecos are complete since January, 1899, and cover five complete years' work, where not only the flow of the Pecos river, but of the daily flow of the flume of the Barstow Irrigation Co. across the Pecos river, has been kept. At low stages of the river this canal company practically takes all of the water from the river. The following table shows the flow of the Pecos river at the Texas & Pacific Railway bridge:

| Year— | Discharge<br>In Cubic Feet. |        |          |
|-------|-----------------------------|--------|----------|
|       | Greatest.                   | Least. | Average. |
| 1899  | 1,040                       | 15     | 90       |
| 1900  | 2,680                       | 20     | 340      |
| 1901  | 540                         | 10     | 440      |
| 1902  | 4,400                       | 15     | 204      |
| 1903  | 2,000                       | 8      | 160      |

The flow of eight cubic feet per second would be soon exhausted were it not for the feeding sand beds in the Pecos country below Pecos.

The records on the Brazos at Waco were completed also for five full years, from January, 1899, to January, 1904. The least flow occurred in March of 1902, when the stream above the new bridge at Waco was only 24 feet wide and had an average depth of seven inches and a mean velocity of 1.36 feet per second, and a discharge of 19 cubic feet per second. This is the bed-rock flow of the Brazos at Waco during its recorded history. The report not only gives a tabulated statement of the flow of the river for the different years, but these are shown graphically. The flow for the five years was as follows:

| Year— | Discharge<br>In Cubic Feet. |        |          |
|-------|-----------------------------|--------|----------|
|       | Greatest.                   | Least. | Average. |
| 1899  | 77,000                      | 26     | 3,020    |
| 1900  | 98,800                      | 315    | 5,700    |
| 1901  | 38,020                      | 61     | 836      |
| 1902  | 74,600                      | 19     | 2,690    |
| 1903  | 65,000                      | 120    | 1,360    |

The records on the Colorado at Austin covered the time since January 1, 1896, and were for eight complete years. The average flow for the eight years was 1792 cubic feet per second, while the least flow at Austin was 175 cubic feet per second, while the drainage area is 37,000 square miles. The greatest flow occurred on April 7, 1900, when the Austin dam was washed away, and was 123,000 cubic feet per second. The flow for the different years is given in the following table:

| Year— | Discharge<br>In Cubic Feet. |        |          |
|-------|-----------------------------|--------|----------|
|       | Greatest.                   | Least. | Average. |
| 1896  | 14,100                      | 180    | 1,460    |
| 1897  | 11,000                      | 200    | 1,200    |
| 1898  | 29,000                      | 210    | 1,880    |
| 1899  | 103,400                     | 210    | 1,170    |
| 1900  | 123,000                     | 410    | 3,110    |
| 1901  | 41,000                      | 175    | 1,994    |
| 1902  | 31,200                      | 180    | 2,220    |
| 1903  | 33,100                      | 320    | 1,300    |

The report goes rather fully into the history, foundation and failure of the Austin dam, and embodies the opinions of Engineers Frizzell, Fanning, Graves and Werenskiold, all of whom were connected with the dam in official capacities, and also the communication of Wilbur F. Foster, of Nashville, upon the feasibility of rebuilding the dam. Mr. Foster states that, from his examination of the wrecked dam, the foundation of the part torn out was destroyed, and that it will cost \$443,000,000 to rebuild the dam (not including the power house).

The records on the Guadalupe at Cuero, the Colorado at Columbus, the Brazos at Richmond, and the Trinity at Riverside, for the year 1903, are given in full. Gauging stations were established at these points late in 1902, and the records are complete for the year 1903 only.

The Guadalupe at Cuero during 1903 had an average discharge of 1790 cubic feet per second, a maximum of 61,000, and a minimum of 740.

The Brazos at Richmond had an average discharge for 1903 of 5400 cubic feet per second, a maximum of 64,000, and a minimum of 1020. Since 1903, however, the flow at a lower stage was found to be only 820 cubic feet per second.

At Riverside, on the Trinity, the average discharge for 1903 was 6860 cubic feet per second, the greatest 27,300, and the least 250.

One of the most striking features of the report is the peculiar sympathy which exists between the volume of flow of Big Spring from the Edwards plateau and the rainfall upon the extended surface of the plateau. The discharge of the San Antonio river, for example, and other streams which issue from the foothills of the plateau, form a perfect indicator of the past weather conditions in the higher plains as far as the rainfall is concerned. Their flush periods follow closely the periods of heavy precipitation, and their minimum flow comes only after dry years upon the plains. Experiments at San Antonio have conclusively shown that the river and the artesian wells of the district have a common source, for when all of the artesian wells were permitted to flow for 24 hours, the level of the head of the lake of the river was seen to sink several inches, but when the wells were shut off, the waters of the lake returned to their former level in about the same time. When graphically plotted, the curve of maximum rainfall and the curve of maximum flow in these large springs are similar, the crests of the latter following those of the former.

In the water-power section there is a complete description of every plant in Texas, with a consideration of the capacity of the stream for actual and prospective water-power energy. The greater number of plants are found in the heavily wooded sections of East Texas, on the watersheds of the Sabine and Neches, and these are confined mostly to the small tributaries of these streams. The reason for this is apparent. The rainfall in East Texas is greater than in the West, and in addition to this, the land is heavily coated with leaves, which act as reservoirs and hold back the water supply and spin it out gradually, and conserve the supply. The result is a more reliable flow and freedom from floods due to sudden run-offs. In the West, where there is less vegetation, where the land has been cleared for farming, or where the grass has been reduced in rankness by strenuous and intensive grazing, the rainfall is less, runs off more quickly, and the stream is thus subject to sudden floods and to conditions that are unfavorable for power or irrigation.

While there are many rivers in Texas that have a greater number of plants along their watershed, the Guadalupe is the king river of Texas when rated by actual energy developed along its course. Its watershed above Cuero is a little above 5000 square miles, and yet it is one of the most unique rivers in Texas, or, for that matter, in the world. The power developed and the potential energy still in the many possible situations make it in a class of its own. The Comal at New Braunfels is fed by springs that have a maximum capacity of about 350 cubic feet per second, which is double the lowest flow of the Colorado at Austin, 10 times the Brazos at Waco, greater than that of the Trinity or that of the Pecos at High Bridge, and equal to that of the Devil's river at Devil's River.

The development of the manufacture of ice in the South is indicated by the fact that at the eighth annual convention of the Southwestern Ice Manufacturers' Association, held at Waco, Tex., there were present representatives of factories in 16 Texan cities.

Max Goldstein, No. 92 Motz street, Berlin, Germany, writes to the Manufacturers' Record that he desires to represent in Berlin well-established American factories in any line.

### PROPOSALS.

ALEXANDER CITY, ALA.

**S**EALD PROPOSALS will be received at the City Hall, Alexander City, Ala., until 12 o'clock M., April 6th, 1904, by the Mayor and Council for construction and furnishing materials for a water works system for the city of Alexander City, Ala., consisting of stand-pipe, 12 ft. by 115 ft. or 50,000-gallon tank and tower, 2-500,000-gallon pumps, 1 air compressor, 2-48 in. x 12 ft. boilers, about three miles of pipe, 37 fire hydrants, gate valves, power house, reservoir, etc. A certified check for 5 per cent, must accompany each bid made payable to A. P. Fuquay, Mayor. The right is reserved to reject any or all bids or parts of bids. Plans and specifications on file at Mayor's office. Specifications can be had on application to J. S. Moore, Atlanta, Ga.

A. P. FUQUAY, Mayor.  
MOORE & McCRARY, Engineers.

**FOR SALE** 1 15" x 22" Baldwin Locomotive. 1 50 KW. Direct Connected Dynamo to a 14" x 18" Ideal Engine. Boilers, Engines, Pumps, Grate Bars.

O. R. WHITNEY,  
39 Cortlandt St., New York.

**RECEIVERS' SALE** — Athens Manufacturing Co., Athens, Ga. Will be sold in Athens, Ga., April 12, 1904, to the highest bidder, two Manufacturing Plants with Cotton Machinery and ample land for enlargement. Both plants situated on the Oconee River, Railroad connections and valuable water power. Sale subject to confirmation of the court.

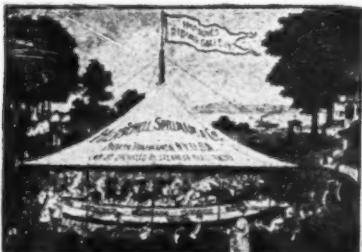
A. L. HULL } Receivers.  
T. P. VINCENT }

### STEAM SPECIALTY SALESMEN WANTED.

You can double your salary by selling our Steam Specialties. We want men in every manufacturing city in the Union. We have an article that economizes fuel and pays users 100 to 200 per cent, per annum. Big money proposition for those that have dealing with Power Plants. Steam Specialty Salesmen, Engineers, and all others who are in touch with Steam Power Plants are invited to correspond for terms.

Address U. S. KING, 322 Elysian Ave., Pittsburgh, Pa.

### THE TONAWANDA



### MERRY-GO-ROUND

With NEW IMPROVEMENTS

For 1904. As usual

Is in ADVANCE of all Others in Appearance and Construction

Biggest MONEY-MAKER on earth.

HERSCHELL-SPILLMAN CO.,

162-198 Sweeney Street  
NORTH TONAWANDA, N. Y.

Passenger and Freight  
of every description  
ALBRO-CLEM ELEVATOR CO.  
PHILADELPHIA

**ELEVATORS**  
ALBRO-CLEM ELEVATOR CO.  
7th St. and Glenwood Ave.

### Manufacturers

of

KILN DRIED  
DRESSED AND  
MATCHED  
FLOORING AND  
CEILING.

RIFT FLOORING  
A Specialty

E. L. MORE, President and Treasurer.  
HENRY STANLEY, Secretary.

J. D. HENDERSON, Vice-President.  
G. B. FRIERSON, Superintendent.

### HORSE SHOE LUMBER COMPANY,

YELLOW PINE LUMBER

RIVER FALLS, ALA.

### TEXTILE MACHINERY For Sale.

The undersigned will receive bids up to Monday, March 28, 1904, for the whole or any part of machinery and fixtures of the Virginia Textile Company, located at Lynchburg, Va.

Any purchaser taking over the whole outfit and desiring to continue the business, will have the privilege of taking over the lease on the building, which has about five years to run. Detailed list of the machinery and further particulars may be had on application.

Correspondence invited.

TYREE & WILKINS,  
No. 821 Main Street,  
LYNCHBURG, VA.

### MARBLE LANDS

I have for sale 250 acres of marble lands in Talladega County, Alabama, adjoining the celebrated GANT Quarry. For further information and prices address J. B. MCCLARY, First National Bank Bldg., Birmingham, Ala.

### NATIONAL FIRE PROOFING COMPANY HOLLOW TILE

The recognized standard material for fire proofing.

Pittsburg New York Boston Chicago Philadelphia Baltimore

### OUR SPECIALTY—YOUR ATTENTION

We want contents of all kinds of factories. We handle complete electric railway and light stations. Generators of every description purchased. Correspondence solicited.

NATIONAL MACHINERY AND WRECKING CO.  
CLEVELAND, OHIO

### PUMPS FOR SALE BARTLETT, HAYWARD & CO.

Cor. Scott and McHenry Sts.  
BALTIMORE, MD.

ALL IN GOOD CONDITION, NEW AND SECOND HAND,  
AT REASONABLE PRICES.

|  |                |      |
|--|----------------|------|
| 1 Knowles Duplex Pump,                       | 14 x 7 x 12    | used |
| 1 " " "                                      | 9 x 5 1/4 x 10 | "    |
| 1 Worthington Duplex Pump,                   | 9 x 5 1/4 x 10 | "    |
| 1 Davidson Duplex Pump,                      | 18 x 18 x 24   | new  |
| 4 " " Vertical,<br>Condenser Pumps including |                |      |
| 4 Condensers "R" No. 6 Special,              | 14 x 21 x 18   | new  |
| 1 Clayton Air Compressor,                    | 9 x 10 x 9     | used |

Postoffice, Express and  
Telegraph Offices and

Freight Depot at

River Falls,  
Ala.

FINISHING BOARDS  
A Specialty

# The Missouri Pacific Railway Company.

## Twenty-third Annual Report—For the Year Ending December 31, 1903.

New York, March 8, 1904.

To the Board of Directors, and Stockholders, of the Missouri Pacific Railway Co.:

I transmit herewith the Twenty-third Annual Report of The Missouri Pacific Railway Co.

The system represented by the Capital Stock of your Company includes the following railroads:

THE MISSOURI PACIFIC RAILWAY,  
THE CENTRAL BRANCH RAILWAY,  
ST. LOUIS IRON MOUNTAIN & SOUTHERN RAILWAY.

Actual mileage operated ..... 6,107.74 miles  
Average during year ..... 5,845.61 miles  
The results of the operation of this system for the calendar year 1903 are as follows:  
Gross earnings ..... \$43,005,768 60  
Operating expenses (68.3 per cent. of gross earnings) ..... 29,415,006 76

Net earnings ..... \$13,680,764 84  
Less—  
Taxes ..... \$1,225,239 45  
Sundry charges ..... 1,538,645 16 2,763,884 61

Net earnings, after deducting taxes and sundry charges ..... \$10,916,880 23  
Add Interest on Investments, dividends on stocks, etc. ..... 3,776,965 43

Net income applicable to interest on bonds and rentals of leased lines. .... \$14,693,845 66  
Interest on bonds and rentals of leased lines. .... 7,107,352 57

Surplus of income for the year over all charges ..... \$7,596,493 09  
From this surplus dividends were declared as follows:  
No. 40- $\frac{1}{2}$  per cent. on \$77,802,300.00 stock outstanding, \$1,945,057 50  
paid July 20, 1903  
No. 50- $\frac{1}{2}$  per cent. on \$77,802,300.00 stock outstanding, 1,945,057 50 payable January 20, 1904

Surplus ..... \$3,696,378 00  
Out of this surplus, appropriations have been made for additional property acquired and improvements to road and equipment during 1903, the details of which will be found on page 23, amounting to ..... 1,249,671 60

Since January 1 the net income has been further increased by \$1,183,400, being 5 per cent. interest on the Texas & Pacific second mortgage bonds owned by the St. Louis Iron Mountain & Southern Railway Co., and this amount, although applicable to the business of 1903, will be taken into the income account for 1904.

Interest, dividends from Investments and income from sources other than operation, amounted to \$3,776,965.43, or 53.1 per cent. of the amount required to pay interest on bonds and rental charges; so that only 7.7 per cent. of the gross earnings from operation, or 20.7 per cent. of the net operating income was called upon to meet the fixed interest and rental charges of the System. The gross earnings per operated mile were \$7372. The net operating income per mile was \$2130. The amount called upon to meet fixed interest and rental charges (after applying other income) amounted to \$579 per mile.

### DIVIDENDS.

Regular semi-annual dividends, aggregating 5 per cent. on the capital stock, have been paid during the year.

### TRAFFIC CONDITIONS.

The gross earnings for the year amounted to \$43,005,768.60, an increase of \$5,600,080, or about 15 per cent., and the net earnings amounted to \$13,680,764.84, an increase of \$1,228,208.03, or about 10 per cent. over the year 1902.

The volume of traffic, while much greater than in any preceding year, was handled under many disadvantages because of floods and adverse weather conditions. During practically the entire year nearly all the main lines were crippled by high water in the Mississippi and Missouri rivers and their tributaries. In May a disastrous flood cut off Kansas City from communication with the outside world, and it was four months before normal traffic conditions were approximately restored. The floods reached St. Louis early in June and seriously crippled interchange with Eastern roads. Another period of high water, followed by interruptions to ferry service by ice during November and December, kept St. Louis and other terminals congested during the latter part of the year, and normal conditions have not yet been fully restored. The gross and net earnings for the year would unquestionably have been greater but for these unfortunate conditions.

### OPERATING CONDITIONS.

#### Appropriations of Income for Improvement of Property and Equipment.

The policy of making liberal expenditures upon the property, from the surplus of income over the amount required to pay 5 per cent. dividends upon the capital stock, has been continued during the year, and the work of changing grades, replacing light bridges by permanent structures, lengthening side tracks, increasing track facilities at terminals and division points, relaying track with heavy rails, ballasting, increasing shop and station facilities, etc., as planned three years ago, is now nearing completion. This improvement work, which has been referred to in previous annual reports, has resulted in the practical rebuilding of 634 miles of main lines, not including the rebuilding of the 158 miles of the Little Rock & Fort Smith Railway, between Little Rock and Van Buren, and the economic benefits therefrom, which, as explained in the last annual report, cannot be fully realized until it is completed, should begin to be reflected in decreased cost of transportation during 1904 and subsequent years. The condensed profile maps appearing in the appendix of this report will convey some idea of the magnitude of the work and the benefits secured therefrom (as well as from new low-grade lines built), in increased tonnage rating of engines operating over the various divisions.

The amount of surplus income so expended during the past year, details of which will be found on page 23, are principally represented by the following items:

|  |                       |
|--|-----------------------|
| Yates Center detour line   | \$184,453 06          |
| Grade reductions   | 325,341 45            |
| New side tracks  | 414,837 32            |
| Excess weight of heavy steel rails over rails replaced             | 543,715 31            |
| New shops  | 160,860 03            |
| Excess cost of new bridges over cost of renewals of old structures | 226,770 62            |
| New ballast  | 172,787 12            |
| Other expenditures   | 199,508 71            |
| <b>Total</b>   | <b>\$3,228,282 62</b> |

The funds to meet these expenditures were provided as follows:  
From appropriation of net income, as shown in the income account of the current year ..... \$1,249,671 60

By expenditures from funds appropriated from surplus income of 1902.

|  |                |
|--|----------------|
| The Missouri Pacific Railway               | \$500,000 00   |
| Less balance carried over to year 1904     | 21,388 98      |
|  | 478,611 02     |
| St. Louis Iron Mountain & Southern Railway | 500,000 00     |
|  | 978,611 02     |
|  | \$2,228,282 62 |

There is still available for improvement on the Missouri Pacific Railway during the year 1904 the balance unutilized, as above, during the year 1903, \$21,388.98.

As the work planned is nearly completed, no specific appropriation has been made from the surplus income of 1903, for improvements to be made in 1904, as it is anticipated that the surplus income for the year 1904 will be more than sufficient to meet such expenditures.

### MAINTENANCE.

Independent of the appropriations of income for improvement, the amounts charged to maintenance expenses were on a liberal scale and included considerable improvement to the property, as well as about \$400,000 expended to December 31 in repairing and replacing property destroyed by floods.

Maintenance of way averaged \$958.51 per mile of road, repairs to locomotives averaged 6.90 cents per mile run, repairs to freight cars averaged 4.9 mills per mile run.

Liberal charges were also made for repairs and renewals of bridges and buildings, details of which will be found in the subsequent pages of this report.

### TRANSPORTATION.

The transportation and motive-power expenses increased \$3,061,942.85, or 17 $\frac{1}{2}$  per cent., while gross earnings increased \$5,600,080.98, or 15 per cent. These percentages reflect the combination of adverse conditions due to floods and consequent congestion of traffic which have already been explained, and also an advance in the price of fuel and other supplies and advances in rates of wages paid to enginemen, trainmen and other employés.

The new mileage put in operation during the year has not yet developed an earning capacity equal to the average of the older lines, and this also contributed to increase of the ratio of transportation expenses to earnings.

Under these adverse conditions the ratio of operating expenses to gross earnings was increased only from 68.8 per cent. in 1902 to 68.3 per cent. in 1903, which shows that some economic benefit has resulted from the improvement work now completed.

In this connection the following statement is interesting, as it shows the progress made in operating efficiency, which should now begin to be reflected in decreased cost of freight transportation.

### Average number of tons in each train, including company material:

|       | Missouri Pacific. | Iron Mountain. | Entire System. |
|-------|-------------------|----------------|----------------|
| Year. |                   |                |                |
| 1900  | 231.5             | 293.0          | 252.5          |
| 1901  | 251.4             | 334.6          | 284.1          |
| 1902  | 262.6             | 383.9          | 309.6          |
| 1903  | 281.7             | 409.1          | 330.8          |

### CAPITAL ACCOUNTS.

Changes in capital accounts during year were as follows:

| Capital Resources:   |                 |
|--|-----------------|
| Realized from increase of funded debt:   |                 |
| St. Louis Iron Mountain & Southern Railway Co. bonds, River & Gulf Division bonds and scrip issued | \$13,316,382 88 |
| Unifying and Refunding 4 per cent. bonds and scrip issued  | 1,732,280 00    |
| General Consolidated Mortgage bonds and scrip issued   | 641,224 70      |
| Total par value of bonds issued during the year  | \$15,689,887 58 |
| Cash realized therefrom after charging to income account current year's proportion of discount was | \$13,637,731 58 |
| Equipment obligations issued   | 8,062,067 60    |
| Decreased value of land grants from sales  | 166,534 36      |
| Total capital resources used   | \$21,806,333 54 |

These resources were applied to the following:

| Capital Expenditures, viz.:  |                 |
|--|-----------------|
| Bonds retired:   |                 |
| St. Louis Iron Mountain & Southern General Consolidated bonds retired from proceeds of land sales  | \$115,000 00    |
| St. Louis Iron Mountain & Southern First Preferred Income bonds retired  | 210 00          |
|  | \$115,210 00    |
| Investments:   |                 |
| \$1,392,200 Texas & Pacific Second Mortgage bonds, acquired at a cost of   | \$1,114,200 00  |
| Stocks and bonds of various branch roads and other proprietary companies, principally deposited with trustees of Unifying and Refunding Mortgage | 2,284,640 83    |
|  | 3,396,840 83    |
| Equipment purchased  |                 |
| Expended for acquisition and construction of new mileage covered by River & Gulf Division mortgage   | 11,126,285 95   |
| Expended in rebuilding Little Rock & Fort Smith Railway  | 1,800,761 82    |
| Sundry branch lines built  | 195,018 42      |
| Real estate purchased  | 261,563 96      |
| Sundry items   | 1,977 75        |
|  | 8,702,013 60    |
| Difference which has been paid from current resources  | \$25,701,754 42 |
|  | \$3,885,420 88  |

This statement shows clearly the operation of the plans explained in the last annual report for the expansion of the Iron Mountain System to meet the existing large volume of traffic, and to provide necessary transportation requirements for the rapidly developing tributary country.

To meet these requirements, the St. Louis Iron Mountain & Southern Railway Co., during 1903, authorized an issue of \$50,000,000.00 of bonds, called the River & Gulf Divisions First Mortgage 4 per cent. bonds, of which \$20,000,000.00 par value have been sold, to pay for new mileage now in course of construction. The bonds are deliverable pro rata, as the mileage for which they were appropriated is completed and ready for operation. \$13,316,382.88 of bonds and scrip have been issued up to December 31, and the balance, \$6,683,617.12, making the \$20,000,000.00 bonds sold, will be delivered during the present year. Work in progress, which will later be reimbursed by proceeds of bonds applicable thereto, amounted on December 31 to \$3,288,000.00.

This amount will therefore largely offset the apparent deficiency of capital resources to meet the requirements during the past year.

The large additions to Equipment represented by Equipment Trust obligations have been necessitated to keep pace with the enlarged volume of traffic and new mileage added to the System.

No charges have been made to Capital Account, except as above specified. The discount on the 4 per cent. bonds sold is carried in a special account, and a pro rata charge will be made against Income each year during the life of the bonds as additional fixed charges.

## CURRENT FINANCES.

|  |                 |
|--|-----------------|
| The following is a brief statement showing the disposition made of Current Funds during the year:  |                 |
| Current Resources:   |                 |
| Surplus of income for the year over all charges for the year.....  | \$7,586,493 00  |
| Add net increase of current liabilities representing collection of accounts applicable to year 1902, amounts charged out this year but not yet paid, and temporary loans ..... | 6,492,316 79    |
|  | <hr/>           |
| Total Current Funds .....  | \$14,078,800 88 |

|   |                 |
|---|-----------------|
| These funds were used as follows:   |                 |
| For Dividend No. 48, paid January 20, 1903.....   | \$1,945,055 00  |
| For Dividend No. 49, paid July 20, 1903.....  | 1,945,057 50    |
| For additional property and improvements to road and equipment during 1903 in excess of amount of funds appropriated out of the surplus of 1902.....  | 1,249,671 00    |
| For investments in stocks and bonds not capitalized, being balance of cost of securities purchased, including a substantial investment in Wabash preferred stock over proceeds of other securities sold ..... | 3,993,111 90    |
| For equipment obligations and notes retired.....  | 1,440,493 00    |
|   | <hr/>           |
| For capital financing, for which funds are still to be provided, as shown in previous statement, covering new mileage, equipment and other property added to the system.....                                  | 10,243,389 00   |
|   | <hr/>           |
| Total appropriation of current funds.....   | 3,835,420 88    |
|   | <hr/>           |
|   | \$14,078,800 88 |

The surplus income over all charges was more than sufficient to pay dividends, improvement appropriations, and equipment notes retired during the year, and the increase of current liabilities was occasioned by the construction of new mileage, for which the treasury will later be reimbursed from the proceeds of sale of River & Gulf Divisions bonds; and by the purchase of a substantial amount of preferred stock of the Wabash Railroad Co.

## INVESTMENT IN PREFERRED STOCK OF WABASH RAILROAD CO.

A growing tendency toward consolidation and other methods of uniting control among railroads east of Chicago and St. Louis has dictated the precaution of taking moderate steps to guard the traffic interests of the Missouri Pacific System against any possible harmful development of this tendency in respect of Eastern outlets and sources of business through those gateways. In this view, and for the purpose of further protecting the large early investment of the Iron Mountain Co. in the debenture bonds of the Wabash Railroad Co., the management has, after careful consideration, deemed it wise to acquire a substantial interest in the preferred stock of the latter company. This interest, while not representing control, is believed to be sufficient to fully cover the purposes which determined its acquisition.

## FINANCIAL CONDITION.

The Current Resources and Liabilities are shown by the following statement:

|  |                |
|--|----------------|
| Current Liabilities.                                     |                |
| Current vouchers and pay-rolls .....                     | \$5,200,158 88 |
| Interest on funded debt, and rental due and accrued..... | 2,338,055 91   |
| Dividend No. 50, January 20, 1904.....                   | 1,945,057 50   |
| Temporary loans .....                                    | 8,555,159 06   |
|  | <hr/>          |

|   |                 |
|---|-----------------|
| Total current Liabilities .....   | \$18,058,431 35 |
| Current Resources.  |                 |
| Cash on hand .....  | \$2,179,525 98  |
| Due from agents and others.....   | 4,668,232 87    |
| Interest on Texas & Pacific Second Mortgage bonds for year 1903, collected March 1, 1904.....   | 1,183,400 00    |
| Amount to be received from River & Gulf Divisions bonds already sold, and applicable to new mileage now in progress but not completed, as previously explained..... | 3,288,000 00    |
| Amount to be received from sale of Unifying and Refunding 4 per cent. bonds, which will become available during 1904, under terms of the mortgage.....              | 900,000 00      |
| Material on hand .....  | 2,429,152 86    |
|   | <hr/>           |

|  |                |
|--|----------------|
| Total current resources, as above specified.....                                       | 14,648,311 71  |
| Deficiency of current resources, as above specified, to meet current obligations ..... | \$3,390,119 64 |

|  |                |
|--|----------------|
| Deferred Liabilities.  |                |
| Equipment renewal and other funds.....                                 | \$1,579,000 27 |
| Equipment trust obligations, payable at various dates until 1913 ..... | 12,342,083 20  |

|                                  |                 |
|----------------------------------|-----------------|
| Total deferred Liabilities ..... | \$13,921,092 47 |
| Investments and Other Resources. |                 |

|   |                 |
|---|-----------------|
| Capital stock of St. Louis Iron Mountain & Southern Railway Co., par value .....  | \$25,733,700 00 |
| Capital stock (common and preferred), of Denver & Rio Grande Railroad Co.; preferred capital stock of Wabash Railroad Co.; capital stock of Texas & Pacific Railway Co., and sundry other investments, which cost |                 |
|   | <hr/>           |
| 19,918,437 21   |                 |

|   |                 |
|---|-----------------|
| Total free investment securities .....  | \$45,652,137 21 |
| Amount due from Little Rock & Fort Smith Railway: Principally for rebuilding the road, which has not yet been capitalized ..... | 3,312,294 71    |

|             |                 |
|-------------|-----------------|
| Total ..... | \$48,964,431 92 |
|-------------|-----------------|

The current resources have been drawn upon liberally during the past year to meet payments for new mileage; for rebuilding the Little Rock & Fort Smith Railway; for the purchase of preferred stock of the Wabash Railroad Co.; for additional terminal real estate, and for sundry branch roads, and while the largest portion of these expenditures will subsequently be reimbursed from the sale of bonds, as shown in the foregoing statement, in the interim it was deemed expedient to finance the requirements by temporary loans rather than by creating new bond issues or by increasing the stock issue; therefore, in February, 1904, the Company negotiated a loan of \$6,000,000 for two years, bearing 5 per cent. interest, and collateral secured by a portion of its free treasury securities, thus maintaining an easy condition as to finances.

The various car trust and equipment notes are not in the nature of current liabilities, as their maturities are so arranged that the added net income to the system from the use of the equipment should provide the necessary funds to pay the notes.

## BUSINESS CONDITIONS.

The country tributary to the system is prosperous, and, provided average crops are harvested, the continuance of the existing large volume of traffic should be expected for the year 1904.

## CONCLUSION.

Attention is invited to complete reports of the Vice-Presidents, and to the statistical statements of the General Auditor, which accompany the same.

To these officers and to the other heads of departments, and to employees generally, credit should be given for the satisfactory results accomplished.

Respectfully,  
GEORGE J. GOULD, President.

## Wants Wood Distillers.

Joseph Bernasconi, No. 36 Leconista, Buenos Ayres, writes to the Manufacturers' Record that he wishes to obtain information about the distillation of wood by a system enabling one to obtain the industrial product on the spot where the timber grows at the least possible cost. He says that distances in his country are so great that it would not be practicable to transport the lumber, but one could do the work of distillation and carbonization at the place where the trees grow. He therefore wants facts about the boilers, machinery, etc., needed for extracting from wood all the industrial and chemical products possible.

## Tripoli and Talc.

John N. Adams, 16 East Eighth street, Chattanooga, Tenn., writes the Manufacturers' Record that he is desirous of obtaining the addresses of the leading users of and brokers in tripoli and talc in all its many and various manufactured forms, as well as in the crude state. Those interested are advised to correspond with Mr. Adams.

## Public Works Superintendent Wanted.

The city of Rocky Mount, N. C., is seeking to engage a competent man for superintendent of public works, the latter consisting of electric-light plant, water works and sewerage system. Inquirers are invited to address F. M. Draugh, chairman of committee.

## Purchased Coal Fields.

The Midland Valley Railroad, according to a dispatch from Muskogee, Ind. Ter., has acquired 15,000 acres of coal land in Sebastian county, Ark., together with the property of the Prairie Creek Coal Co., including six big mines with a daily output of 18,000 tons.

The International Mercantile Agency, 346 Broadway, New York, announces the resignation of Mr. T. N. McCauley as president and the election of Mr. William C. Lane president of the Standard Trust Co. of New York City, as his successor; also, the election of Mr. William A. Prendergast, for five years secretary-treasurer of the National Association of Credit Men, as vice-president and general manager. The company also announces the resignation of Mr. Ross M. Turner as secretary and the election of Mr. W. H. Sterling, the company's treasurer, to succeed him.

It is announced that Mr. C. Tenant Lee, representing a Boston company, proposes to establish in and near New Orleans plants for the manufacture, from bagasse, of boards of the character used in making car breasts, car panels, table tops, the sides of drawers and berry baskets.

The Middle Georgia Cotton Co., with headquarters at Sandersville, sold last week three carloads of cottonseed to be shipped direct to Africa, where it will be planted as a part of the effort to raise in British dominions cotton to supply the English mills.

Isadore Newman, of New Orleans, has given to the Manual Training School of that city, named after him, \$10,000 to provide its equipment.

Mr. George P. Russell, of Orlando, Fla., has built there a modern cane-grinding and syrup-manufacturing plant.

## FINANCIAL NEWS.

The Manufacturers' Record invites information about Southern financial matters, items of news about new institutions, dividends declared, securities to be issued, openings for new banks, and general discussions of financial subjects bearing upon Southern matters.

## Review of the Baltimore Market.

Office Manufacturers' Record.

Baltimore, Md., March 15.

The past week in the Baltimore stock market was distinguished by strength in United Railways issues, notably in the incomes and the 1st mortgage 4 per cents. Later the general list became stronger and active. Consolidated Gas was quiet and the shares sold higher. In Seaboard there was no special movement, and Cotton Duck and G. B. S. Brewing Co. issues were dull. Bank and trust company stocks were quiet and the demand for investment securities was good.

In the trading, United Railways sold from 7½ to 7½, the incomes from 51½ to 53½, and the 4s from 89 to 90½; United Light and Power preferred changed hands at 35, and the 4½ per cents. at 81 and 82; Consolidated Gas sold from 60 up to 64, the 6s at 100, the 5s at 111, and the 4½s at 100%; Seaboard common was traded in between 10 and 10½, the preferred between 16½ and 18½, the 4s from 69½ to 70, the 10-year 5s at 97½ and 97¾, and the three-year 5s from 81 to 82½; Cotton Duck common sold at 2, the incomes at 14, and the 5s at 60 to 61; G. B. S. 1sts, at 47% to 48½.

Bank stocks sold as follows: Citizens, 25½ to 26; Western, 36 and 37; Merchants, 180; Bank of Baltimore, 104½. Maryland Casualty was traded in at 45, Mercantile Trust at 125 and 130, United States Fidelity and Guaranty at 100.

Other securities dealt in were as follows: Atlantic Coast Line stock, 106½ and 107; Atlantic Coast Line 4s, 91½ to 91¾; do, new 4s, certificates, 83; Baltimore City 5s, 1916, 118; do, 3½s, 1930, 109; Georgia & Alabama 5s, 102½ and 103; Northern Central 5s, A, 117½; Atlanta Street Railway 5s, 104½ and 105; Georgia Southern & Florida 5s, 112½ to 113½; Petersburg B 6s, 124½; West Virginia Central 6s, 110½ and 111; Charleston Consolidated Electric 5s, 79½ to 85; Georgia Pacific 1sts, 120½ to 121½; Richmond and Danville debenture 5s, 110½; Piedmont & Cumberland 5s, 105½; South Bound 5s, 106; Columbia & Greenville 6s, 115 and 115½; Western Maryland 4s, 83½; Alabama Consolidated Coal and Iron common, 11; Virginia Midland 4th, 109; City & Suburban (D. C.) 5s, 90½; Maryland Telephone 5s, 77½ to 80; Virginia Midland 2d, 109½; Baltimore City Passenger 5s, 108; North Carolina 6s, 104; Virginia Midland 1st, 103½; City & Suburban 5s, Baltimore, 112½; Norfolk & Carolina 5s, 115; Wilmington & Weldon 5s, 116; International Mercantile Marine preferred, 19½; Northern Central 6s, 1904, 101%; Northern Central stock, 88½.

## SECURITIES AT BALTIMORE.

## Last Quotations for the Week Ended

March 15, 1904.

| Railroad Stocks.              | Par. | Bid. | Asked. |
|-------------------------------|------|------|--------|
| Atlanta & Charlotte.....      | 100  | 150  | ...    |
| Georgia Sou. & Fla. 1st Pref. | 100  | 92½  | ...    |
| Georgia Sou. & Fla. 2d Pref.  | 100  | 90   | ...    |
| United Railways & Elec. Co.   | 50   | 76   | 7½     |
| Seaboard Railway Common.      | 100  | 10%  | 10½    |
| Seaboard Railway Pref.        | 100  | 17%  | 17½    |
| Atlantic Coast Line.....      | 100  | 100½ | 107    |
| Atlantic Coast Line of Conn.  | 220  | 220  | 234%   |
| Bank Stocks.                  |      |      |        |
| Citizens' National Bank.....  | 10   | 25   | 26     |
| Commer. & Far. Nat. Bank.     | 100  | 50   | 50     |
| First National Bank.....      | 100  | ...  | 155    |
| Mercantile National Bank..... | 100  | ...  | 180    |
| National Bank of Baltimore.   | 100  | ...  | 112    |
| National Exchange Bank.....   | 100  | 181  | ...    |
| National Howard Bank.....     | 10   | 11   | ...    |

|   |     |     |
|---|-----|-----|
| National Union Bank of Md.                  | 100 | 117 |
| Second National Bank                        | 100 | 199 |
| Third National Bank                         | 100 | 95  |
| Western National Bank                       | 20  | 35  |
| <b>Trust, Fidelity and Casualty Stocks.</b> |     |     |

|                            |     |     |
|----------------------------|-----|-----|
| Central Real Est. & Trust. | 50  | 33  |
| Colonial Trust             | 50  | 18  |
| Continental Trust          | 100 | 95  |
| Fidelity & Deposit         | 50  | 126 |
| Maryland Casualty          | 25  | 45  |
| Mercantile Trust & Deposit | 50  | 128 |
| Union Trust                | 50  | 25  |
| U. S. Fidelity & Guaranty  | 100 | 103 |

**Miscellaneous Stocks.**

|                            |     |    |
|----------------------------|-----|----|
| G. B. & S. Brewing Co.     | 100 | 4% |
| United Elec. L. & P. Pref. | 50  | 33 |
| Cotton Duck Voting Trust   | 100 | 1% |
| Consolidation Coal         | 100 | 60 |
| Consolidated Gas           | 100 | 63 |

**Railroad Bonds.**

|                                  |      |      |
|----------------------------------|------|------|
| Atlanta & Charlotte 1st 7s.      | 1907 | 107% |
| Albany & Northern 5s.            | 91   | 92   |
| Atlantic Coast Line Con 4s.      | 91%  | 92   |
| Atlantic Coast Line 5s (Conn.)   | 109% | 111  |
| Atl. Coast Line 4s (Conn.) ctfs. | 90   |      |
| Char. Col. & Aug. 1st 5s.        | 1910 | 110% |
| Char. Col. & Aug. 2d 7s.         | 1910 | 110  |
| Columbia & Green. 1st 6s.        | 1916 | 115% |
| Geor. Car. & North. 1st 5s.      | 1929 | 106% |
| Geor. South. & Fla. 1st 5s.      | 1945 | 113% |
| Georgia Pacific 1st 6s.          | 1923 | 121% |
| Petersburg. Class B 6s.          | 1926 | 122  |
| Piedmont & Cum. 1st 5s.          | 1911 | 105  |
| Raleigh & Augusta 1st 6s.        | 1926 | 116% |
| Richmond & Dan. Gold 6s.         | 1915 | 113  |
| Savannah, Fla. & West. 6s.       | 1934 | 112% |
| Seaboard & Roanoke 6s.           | 1916 | 99   |
| Seaboard & Roanoke 5s.           | 1926 | 109  |
| Southern Railway Con. 5s.        | 1994 | 111  |
| Virginia Midland 1st 6s.         | 1906 | 103% |
| Virginia Midland 2d 6s.          | 1911 | 109% |
| Virginia Midland 3d 6s.          | 1916 | 110% |
| Virginia Midland 4th 3-4-5s.     | 1921 | 108  |
| Virginia Midland 5th 5s.         | 1926 | 108  |
| West. North Car. Con. 6s.        | 1914 | 114% |
| West. Virginia Cen. 1st 6s.      | 1911 | 110% |
| Wilming., Col. & Aug. 6s.        | 1910 | 108  |
| Wilming. & Wel. Gold 5s.         | 1935 | 116  |
| Charleston City Railway 5s.      | 1923 | 102% |
| Charleston Con. Elec. 5s.        | 1900 | 84%  |
| Knoxville Traction 1st 5s.       | 1928 | 86   |
| Newp. News & Old Pt. 5s.         | 1938 | 100  |
| Norfolk Street Ry. 5s.           | 1944 | 103  |
| United Railways 1st 4s.          | 1949 | 90%  |
| United Railways Inc. 4s.         | 1940 | 53%  |
| Seaboard 4s.                     | 1904 | 70   |
| Seaboard 10-year 5s.             | 1973 | 100  |
| Seaboard 3-year 5s.              | 1929 | 82%  |
| Lexington Railway 1st 5s.        | 1900 | 100  |
| Georgia & Alabama Con. 5s.       | 102  | 102% |
| South Bound 5s.                  | ...  | 106% |

**Miscellaneous Bonds.**

|                                  |      |      |
|----------------------------------|------|------|
| Mt. V. & Woodby's Cot. Duck 5s.  | 59   | 60%  |
| Mt. V. & Woodby's Cot. Duck Inc. | 12%  | 15   |
| G. R. & S. Brewing 1st 2-4s.     | 47%  | 48   |
| G. R. & S. Brewing 2d Incomes    | 22   | 23   |
| United Elec. Light & Pow. 4% 2s. | 80   | 85   |
| Atlanta Gaslight 1st 5s.         | 1947 | 100  |
| Consolidated Gas 6s.             | 1910 | 100% |
| Consolidated Gas 5s.             | 1939 | 111% |

**Southern Cotton Mill Stocks.**

**Quotations Furnished by Hugh MacRae & Co., Wilmington, N. C., for Week Ending March 11, 1904.**

| Bid                                | Asked |
|------------------------------------|-------|
| Abbeville Cotton Mills, S. C.      | 75    |
| Aiken Mfg. Co., S. C.              | 85    |
| Anderson Cotton Mills, S. C.       | 121   |
| Augusta Factory, Ga.               | 72    |
| Avondale Mills, Ala.               | 101   |
| Belton Mills, S. C.                | 102   |
| Bibb Mfg. Co., Ga.                 | 105   |
| Brandon Mills, S. C.               | 101   |
| Buffalo Cotton Mills, S. C.        | 100   |
| Buffalo Cotton Mills, S. C., pfd.  | 100   |
| Cabarrus Cotton Mills, N. C.       | 122   |
| Chiquilla Mfg. Co., S. C.          | 86    |
| Clifton Mfg. Co., S. C.            | 95    |
| Clinton Cotton Mills, S. C.        | 135   |
| Courtenay Mfg. Co., S. C.          | 110   |
| Columbus Mfg. Co., Ga.             | 102   |
| Dallas Mfg. Co., Ala.              | 78    |
| Darlington Mfg. Co., S. C.         | 91    |
| Eagle and Phenix Mills, Ga.        | 108   |
| Easley Cotton Mills, S. C.         | 101   |
| Enoree Mfg. Co., S. C.             | 74    |
| Enterprise Mfg. Co., Ga.           | 76    |
| Exposition Cotton Mills, Ga.       | 149   |
| Gaffney Mfg. Co., S. C.            | 90    |
| Graniteville Mfg. Co., S. C.       | 132%  |
| Dallas Mfg. Co., Ala.              | 100   |
| Greenwood Cotton Mills, S. C.      | 102   |
| Grendel Mills, S. C.               | 102   |
| Henrietta Mills, N. C.             | 196   |
| John P. King Mfg. Co., Ga.         | 84    |
| Lancaster Cotton Mills, S. C.      | 95    |
| Lancaster Cot. Mills, S. C., pfd.  | 100   |
| Langley Mfg. Co., S. C.            | 95    |
| Laurens Cotton Mills, S. C.        | 155   |
| Lockhart Mills, S. C.              | 102   |
| Louise Mills, N. C., pfd.          | 102   |
| Marlboro Cotton Mills, S. C.       | 101   |
| Mills Mfg. Co., S. C.              | 100   |
| Mills Mfg. Co., S. C., pfd.        | 100   |
| Monarch Cotton Mills, S. C.        | 90    |
| Mongham Mills, S. C.               | 100   |
| Newbern Cotton Mills, S. C.        | 120   |
| North Cotton Mills, S. C.          | 110   |
| Odell Mfg. Co., N. C.              | 100   |
| Orangeburg Mfg. Co., S. C., pfd.   | 102   |
| Orr Cotton Mills, S. C.            | 100   |
| Pacolet Mfg. Co., S. C.            | 100   |
| Pelzer Mfg. Co., S. C.             | 175   |
| Piedmont Mfg. Co., S. C.           | 190   |
| F. W. Poe Mfg. Co., S. C.          | 136   |
| Roanoke Mills, N. C.               | 102   |
| Saxon Mills, S. C.                 | 100   |
| Sibley Mfg. Co., Ga.               | 60    |
| Southern Cotton Mills, N. C.       | 91    |
| Spartan Mills, S. C.               | 137%  |
| Trion Mfg. Co., Ga.                | 125   |
| Tuacapan Mills, S. C.              | 141%  |
| Union Cotton Mills, S. C.          | 145   |
| Warren Mfg. Co., S. C., pfd.       | 100   |
| Washington Mills, Va.              | 100   |
| Washington Mills, Va., pfd.        | 100   |
| Whitney Mfg. Co., S. C.            | 113   |
| Wilmington Cot. Mills, N. C., pfd. | 100   |
| Woodruff Cotton Mills, S. C.       | 95    |
|                                    | 100   |

**New Corporations.**

The Western National Bank of Fort Worth, Texas, has been authorized to begin business.

Reported that T. C. Dunn and others are organizing a new banking firm at Houston, Texas; capital, \$300,000.

W. A. Clements and others are reported to be organizing a bank at Munford, Tenn. The capital is to be from \$10,000 to \$15,000.

The Dunlap State Bank, of Dunlap, Mo., capital \$10,000, has been incorporated by A. E. Fisher, George A. Moore, Ed Upton and others.

The First National Bank of Versailles, Mo., capital \$30,000, has been approved. It is a conversion of the Bank of Morgan County, of that place.

A dispatch from Greenwood, Miss., says that T. R. and A. Henderson and associates have purchased a building and will soon start another bank.

A bank has been organized, with \$10,000 capital, at Cedar Hill, Tenn. B. F. Byrns, president; E. L. Hawkins, vice-president; M. R. Alnot, cashier.

The People's Bank of Kershaw, S. C., has been chartered with \$50,000 capital. S. W. Heath, president and treasurer; R. L. Blackman, vice-president.

The Carolina Building and Loan Co., of Charleston, S. C., has been chartered; capital, \$5000. J. T. McTureous, president; R. B. Gilchrist, secretary.

C. D. Rodgers, of Chicago; Colonel George A. Hill and E. E. Carpenter, of Canton, S. Dak., will, it is reported, establish a national bank at Sour Lake, Texas.

It is reported that a new bank, to be known as the Mercantile, will be established at Norfolk, Va., with \$50,000 capital, the stock having been already subscribed.

The Bank of Kershaw, at Kershaw, S. C., capital \$50,000, has been organized with Leroy Springs president, J. T. Stevens vice-president, and J. M. Carson treasurer.

A Clearing House Association has been organized at Little Rock, Ark., with Oscar Davis president, George W. Rogers vice-president, and Henry Parker secretary.

The Citizens National Bank of Paintsville, Ky., capital \$25,000, has been organized. H. S. Howes, president; Jesse Stafford, vice-president; James F. Bailey, cashier.

The Roxboro Banking Co. is being organized at Roxboro, N. C., and it is reported E. B. Reade will be president and J. M. Blalock vice-president; J. S. Merritt is also interested.

The Cumberland City Bank, of Cumberland City, Tenn., capital \$25,000, has been incorporated by Robert Steele, W. T. Thomas, Samuel Wickham, W. B. Scott and P. P. Pickard.

The Merkel National Bank, of Merkel, Texas, capital \$25,000, has been approved. The organizers are: J. H. Warwick, of Merkel; Henry James, Samuel Butman and J. O. Hamilton.

The Lee County Bank, of Marianna, Ark., capital \$50,000, has been chartered. Julius Lesser is president, Morris Lesser vice-president, W. P. Weld secretary, R. H. Nall treasurer.

The J. L. Treadaway Real Estate and Investment Co., capital \$20,000 to \$100,000, has applied for a charter at Columbus, Ga. The incorporators are: B. A. Bass, A. R. Bass and J. L. Treadaway.

The Commercial Savings Bank and Trust Co. has begun business at Camden, S. C. The officers are: E. S. Vaux, D. Brach, assistant cashier, and others.

president; D. R. Williams, Jr., vice-president, and J. T. Mackay, cashier.

The Morris County National Bank, of Naples, Texas, capital \$35,000, has been approved. The organizers are: D. A. Cook, of Naples, Texas; J. H. Matthews, J. C. Martin, J. Y. Lewis and C. H. Pope.

The Bank of Pineview, Ga., has been organized by W. S. Witham and others, with \$25,000 capital. President, J. J. Dennard; directors, E. T. Holt, R. E. Warren, D. M. Harvey and W. D. Mann.

The First National Bank of Mena, Ark., capital \$50,000, has been authorized to begin business. C. A. Smith, president; D. H. Hopkins and J. P. Hayworth, vice-presidents; L. C. Acruaman, cashier.

The First National Bank of Berwin, Ind. Ter., capital \$25,000, has been approved. The organizers are G. W. Young, Wm. F. Warren, F. W. Fisher, Charles Bohnke, H. S. Suggs and C. W. Henderson.

The First National Bank of Alpine, Texas, has been approved; capital, \$25,000. The organizers are: C. A. Brown, of Alpine; D. B. Hoornbeck, R. L. Nevill, J. B. Gillett, H. L. Kokernot and W. J. McIntyre.

The People's Bank of Greensboro, Ala., has begun business, capital \$50,000; A. Lawson, president; Lewis Lawson, teller. The other directors are Thomas E. Knight, W. W. Overstreet and S. J. Monette.

The First National Bank of Prestonsburg, Ky., capital \$25,000, has been approved. The organizers are J. M. Wedington, of Prestonsburg; O. P. Powers, R. E. Stanley, B. M. Spencer, James Goble and A. J. May.

It is reported that Captain Henry Cooke, now stopping at Pablo Beach, Fla., has secured an option upon the building of the First National Bank of Florida, at Jacksonville, and will establish a new bank.

The Stockmen's National Bank of Cottulla, Texas, capital \$60,000, has been approved. The organizers are L. A. Kerr, George Copp, B. Wildenthal, Charles Sullivan, G. Philipe, C. C. Thomas and others.

The People's Building and Loan Association, Charleston, S. C., has received its commission and has opened subscription books. The incorporators are R. G. Rhett, T. T. Hyde, Leland Moore, R. M. Masters, J. Alwyn Ball.

The Bank of Waterproof has been organized at Waterproof, La.; capital, \$25,000. The directors are S. W. Martin, B. C. Andrews, N. B. Hunter, F. M. Nassony and W. A. Gorton. L. B. Robinson, at Centerville, is interested.

The Citizens State Bank of Skedee, Okla., is practically a new institution, having amended its charter, removing it from Agra; capital, \$5000. The incorporators are: John C. Coen and J. H. Coen, of Agra, and Charles M. Smith, of Ripley.

The Hogansville Banking Co., of Hogansville, Ga., capital \$25,000, has applied for a charter, the incorporators being J. F. Askew, W. A. Trimble, for Brazill Trimble & Co.; H. J. Kellar, E. B. Strozier, M. D. Sewell, and F. M. Jennings, for Jennings Bros.

It is reported that a new bank has been organized at Iredell, Tex., by A. M. Young, cashier of the Continental Bank of Fort Worth; W. W. Johnson, formerly of Groesbeck, Tex., who is cashier of the new institution; K. M. Jennings, for Jennings Bros.

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